THE

SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

Edited by
THE FACULTY OF THE SCHOOL OF EDUCATION OF THE
UNIVERSITY OF CHICAGO

VOLUME XXVII

JANUARY—DECEMBER, 1919

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS

School of Education
Oct. 1, 1928

Published
January, February, March, April, May, June, September,
October, November, December, 1919

2796

L
11
E93
v.27
1919

INDEX TO VOLUME XXVII

AUTHORS

Andrews, W. E.—Correlation in High-School Science Courses, 1–12.

Appell, Israel, and Wolfson, Arthur M.—Plan for Organizing the Entrants into the High School of Commerce According to their Attainments in Scholarship, their Capacities, and their Aims, 256–61.

Barnes, H. O.—Geometry by Analysis, 612–18.

Barnes, Walter.—Suggestions for the English Course in the Junior High School, 523–32.

Bobbitt, Franklin.—Supervisory Leadership on the Part of the High-School Principal, 733–47.

Breed, Frederick S.—Measured Results of Supervised Study, 186–204, 262–84.

Breslich, E. R.—A Committee on Results, 600–11.

Burr, A. W.—Directed Study, 90–100.

Chapman, J. Crosby.—The Measurement of Physics Information, 748–56.

Cox, Philip W. L.—The Ben Blewett Junior High School: An Experiment in Democracy, 345–59.

English Department, University High School, University of Chicago.—Differentiating Instruction in Ninth-Grade English, 772–88.

Fletcher, W. H.—Concrete Geometry in the Junior High School, 441–57.

Gosling, T. W.—A Special Academic Class in the Junior High School, 241–55.

Gray, William S.—The Technique of Supervising High-School Practice Teaching, 512–22.

Hill, Howard C.—The Social Sciences in the University High School, 680–94.

Hough, W. R.—Advantages of the Double-Six Organization, 377–84.

Jernegan, Marcus W.—Compulsory Education in the American Colonies, 24–43.

Jernegan, Marcus W.—Compulsory Education in the Southern Colonies, 405–25.

Jernegan, Marcus W.—The Educational Development of the Southern Colonies, 360–76.

Kent, Raymond A.—University Preparation of Teachers for High Schools, 172–85.

Koos, Leonard V.—Space-Provisions in the Floor-Plans of Modern High-School Buildings, 573–99.

Lyman, R. L.—Co-operative Investigations in Ninth-Grade English, 325–44.

McClure, Worth.—Morals by Rote? 458–64.

Minnick, J. H.—A Scale for Measuring Pupils' Ability to Demonstrate Geometrical Theorems, 101–9.

Morrison, H. C.—Present-day Needs in Higher Education, 653–70.

Morrison, H. C.—The Supervision of High-School Teaching, 13–23.

North, Francis R.—The Relation of the Public High School to the System of Which It Is a Part, 81–89.

Phillips, D. E.—The Decalogue of the Junior High School, 161–71.

Rorem, S. O.—A Grading Standard, 671–79.

Rorem, S. O.—Measuring East Junior High School of Sioux City, Iowa, 44–55.

Rugg, Earle Underwood.—Character and Value of Standardized Tests in History, 757–71.

Rynearson, Edward.—The Pittsburgh Co-operative Plan, 533–44.

Smith, Bertha.—Correlation of Ability in Reading with the General Grades in High School, 493–511.

Smith, Lewis Wilbur.—The High-School Faculty Meeting, 426–40.

Thompson, C. J.—A Study of the Socialized Versus the Academic Method of Teaching Written Composition, 110–33.

Whitney, Frank P.—Provision for Accelerant and Retarded Children in Junior High School, 695–705.

Wolfson, Arthur M., and Appell, Israel.—Plan for Organizing the Entrants into the High School of Commerce According to their Attainments in Scholarship, their Capacities, and their Aims, 256–61.

Wreidt, E. A.—Industrial Education in Illinois under the Smith-Hughes Law, 285–97.

ARTICLES

Accelerant and Retarded Children, Provision for, in Junior High School, Frank P. Whitney, 695–705.
Compulsory Education in the American Colonies, Marcus W. Jernegan, 24–43.
Compulsory Education in the Southern Colonies, Marcus W. Jernegan, 405–25.
Democracy, The Ben Blewett Junior High School: An Experiment in, Philip W. L. Cox, 345–59.
Directed Study, A. W. Burr, 90–100.
Double-Six Organization, Advantages of the, W. R. Hough, 377–84.
Educational Development, The, of the Southern Colonies, Marcus W. Jernegan, 360–76.
English Course, Suggestions for the, in the Junior High School, Walter Barnes, 523–32.
English, Ninth-Grade, Co-operative Investigations in, R. L. Lyman, 325–44.
English, Ninth-Grade, Differentiating Instruction in, English Department, University High School, University of Chicago, 772–88.
Faculty Meeting, The High-School, Lewis Wilbur Smith, 426–40.
Geometry by Analysis, H. O. Barnes, 612–18.
Geometry, Concrete, in the Junior High School, W. H. Fletcher, 441–57.
Grading Standard, A, S. O. Rorem, 671–79.
Higher Education, Present-day Needs in, H. C. Morrison, 653–70.
History, Standardized Tests in, Character and Value of, Earle Underwood Rugg, 757–71.
Industrial Education in Illinois under the Smith-Hughes Law, E. A. Wreidt, 285–97.
Junior High School, The Decalogue of the, D. E. Phillips, 161–71.
Junior High School, A Special Academic Class in the, T. W. Gosling, 241–55.
Measuring East Junior High School of Sioux City, Iowa, S. O. Rorem, 44–55.
Morals by Rote? Worth McClure, 458–64.
Physics Information, The Measurement of, J. Crosby Chapman, 748–56.
Pittsburgh Co-operative Plan, The, Edward Rynearson, 533–44.
Plan for Organizing the Entrants into the High School of Commerce According to their Attainments in Scholarship, their Capacities, and their Aims, Israel Appell and Arthur M. Wolfson, 256–61.
Practice Teaching, High-School, The Technique of Supervising, William S. Gray, 512–22.
Public High School, The Relation of the, to the System of Which It Is a Part, Francis R. North, 81–89.
Reading, Correlation of Ability in, with the General Grades in High School, Bertha M. Smith, 493–511.
Results, A Committee on, E. R. Breslich, 600–11.
Scale for Measuring Pupils' Ability to Demonstrate Geometrical Theorems, A, J. H. Minnick, 101–9.
Science Courses, High-School, Correlation in, W. E. Andrews, 1–12.
Social Sciences in the University High School, Howard C. Hill, 680–94.
Space-Provisions in the Floor-Plans of Modern High-School Buildings, Leonard V. Koos, 573–99.
Supervised Study, Measured Results of, Frederick S. Breed, 186–204, 262–84.
Supervision, The, of High-School Teaching, H. C. Morrison, 13–23.
Supervisory Leadership on the Part of the High-School Principal, Franklin Bobbitt, 733–47.
University Preparation of Teachers for High Schools, Raymond A. Kent, 172–85.
Written Composition, A Study of the Socialized Versus the Academic Method of Teaching, C. J. Thompson, 110–33.

EDUCATIONAL NEWS AND EDITORIAL COMMENT

56–66, 134–45, 205–18, 298–313, 385–94, 465–78, 545–53, 619–29, 706–20, 789–96.

NEWS ITEMS FROM THE SCHOOL OF EDUCATION OF THE UNIVERSITY OF CHICAGO

554–56, 630–32, 721–22, 797–98.

CURRENT EDUCATIONAL WRITINGS

Art and Art Education, Recent Literature on, Walter Sargent, 395–97.
Chemistry Books for a High-School Library, Neil E. Gordon, 645–50.
English, Secondary-School, A Survey of Recent Books in, R. L. Lyman, 633–45.
General Education, Some Recent Books in the Field of, 560–62.

High-School Subjects, Tests in, A Brief Bibliography of, H. F. Scott, H. C. Wright, Charles J. Pieper, and Rosa Biery, 799–809.
History and the Teaching of History in Junior and Senior High Schools, A Brief Review of the Current Literature Relative to, R. M. Tryon, 67–73.
History Teachers, High-School, Some Recent Books of Interest to, 557–59.
Home Economics in High Schools, Recent Books for, Department of Home Economics, University of Chicago, 219–33, 314–18.
Latin, Secondary, Recent Publications in the Field of, W. L. Carr, 146–51.
Mathematics Teachers, High-School, Some Recent Books of Interest to, Ernst R. Breslich, 562–64.
School Administration, Recent Literature on, George L. Harris, 398–404.
Science, High-School, A Review of the Year's Progress in, 479–84.

BOOK REVIEWS

Allison, May, and others, Industrial Experience of Trade School Girls in Massachusetts (W. G. Reeder), 319.
Andress, J. Mace, Health Education in Rural Schools, 487.
Annual Report of the General Education Board, 1917–1918, 487–88.
Ashley, R. L., Modern European Civilization, 236.
Bachman, Frank P., and Flexner, Abraham, The Gary Schools: A General Account, 155.
Bachman, Frank P., and Strayer, George D., The Gary Schools: Organization and Administration, 156.
Beard, C. A., and Ogg, F. A., National Governments and the World War, 321.
Bigwood, Inez, and Thompson, J. G., Lest We Forget: World War Stories, 485.
Bishop, A. L., and Keller, A. G., Industry and Trade—Historical and Descriptive Account of their Development in the United States, 157–58.
Bliss, Don C., Methods and Standards for Local School Surveys, 153–54.
Bower, William Clayton, A Survey of Religious Education in the Local Church (W. G. Reeder), 318–19.
Buisson, Ferdinand, and Farrington, Frederic Ernest, French Educational Ideals of Today (F. S. Breed), 724–25.
Caldwell, O. W., and Eikenberry, W. L., General Science (E. R. Downing), 76.
Cardinal Principles of Secondary Education (W. G. Reeder), 235.
Carver, Thomas N., Principles of Political Economy, 320.
Cook, M. T., Applied Economic Botany, 565.
Davis, S. E., The Work of the Teacher, 319–20.
Dawson, Jean, and Hodge, C. F., Civic Biology (E. R. Downing), 75–76.
Downing, E. R., A Source Book of Biological Nature Study (F. A. Chappell), 566.
An Educational Study of Alabama (F. S. Breed), 729–30.
Eikenberry, W. L., and Caldwell, O. W., General Science (E. R. Downing), 76.
Engelhardt, N. L., A School Building Program for Cities, 154–55.
Farrington, Frederic Ernest, and Buisson, Ferdinand, French Educational Ideals of Today (F. S. Breed), 724.
Fiftieth Annual Report of the State Superintendent of Education of the State of South Carolina, 1918, 488.
Flexner, Abraham, and Bachman, Frank P., The Gary Schools: A General Account, 155.
Giles, Frederick Mayor, and Giles, Imogene Kean, Vocational Civics, 484–85.
Goldberger, Henry H., English for Coming Citizens, 235–36.
Hobbs, W. H., The World War and Its Consequences, 486.
Hobson, Elsie Garland, Educational Legislation and Administration in the State of New York from 1777 to 1850, 156–57.
Hodge, C. F., and Dawson, Jean, Civic Biology (E. R. Downing), 75–76.
Hunter, Walter S., General Psychology (F. S. Breed), 725–26.
Industrial Education in Wilmington, Delaware (W. G. Reeder), 235.
Jarvis, Chester D., American Agricultura Colleges (W. G. Reeder), 319.
Keller, A. G., and Bishop, A. L., Industry and Trade—Historical and Descriptive Account of their Development in the United States, 157–58.
Lewis, W. D., and Singer, E. A., The Winston Simplified Dictionary, 565.
Lippincott, Isaac, Problems of Reconstruction, 486.
McFee, Inez N., The Teacher, the School, and the Community, 237–38.
Menge, E. J., Backgrounds for Social Workers, 237.
Moore, Frederick, The Chaos in Europe, 486.

Moran, Thomas F., and Woodburn, James A., The Citizen and the Republic, 157.
Newton, A. W., The English Elementary School (F. S. Breed), 726–27.
Norsworthy, Naomi, and Whibley, Mary Theodora, The Psychology of Childhood (Frank N. Freeman), 151–52.
Ogg, F. A., and Beard, C. A., National Governments and the World War, 321.
Pearson, Francis B., The Reconstructed School, 488–89.
Richards, Charles R., The Gary Schools: Industrial Work, 155.
Richardson, Roy Franklin, The Psychology and Pedagogy of Anger (F. S. Breed), 727–28.
Rural-Teacher Preparation in State Normal Schools (W. G. Reeder), 235.
Sears, J. B., Classroom Organization and Control (Franklin Bobbitt), 152–53.
Seventy-fourth and Seventy-fifth Annual Reports of the Board of Education of the City of Detroit (W. G. Reeder), 234.
Singer, E. A., and Lewis, W. D., The Winston Simplified Dictionary, 565.
Spillman, Harry Collins, Personality, 489.
Steele, David M., Addresses and Sermons to Students (W. G. Reeder), 233–34.
Stewart, Anne, Social Problems: Outlines and References, 236–37.
Strayer, George D., and Bachman, Frank P., The Gary Schools: Organization and Administration, 156.
Stuart, Henry Waldgrave, Liberal and Vocational Studies in the College (W. G. Reeder), 233.
Sweet, William Warren, A History of Latin America, 320–21.
Thompson, J. G., and Bigwood, Inez, Lest We Forget: World War Stories, 485.
Thwing, Charles Franklin, The College Gateway, 489, 723–24.
Trafton, G. H., The Teaching of Science in the Elementary School (E. R. Downing), 74–75.
Whibley, Mary Theodora, and Norsworthy, Naomi, The Psychology of Childhood (Frank N. Freeman), 151–52.
Williams, J. F., Healthful Living (E. R. Downing), 730–31.
Woodburn, James A., and Moran, Thomas F., The Citizen and the Republic, 157.
Woodhull, J. F., The Teaching of Science (E. R. Downing), 73–74.

PUBLICATIONS RECEIVED

76–80, 158–60, 238–40, 322–24, 490–92, 567–71, 650–52, 731–32, 809–12.

THE SCHOOL REVIEW
A JOURNAL OF SECONDARY EDUCATION

VOLUME XXVII JANUARY 1919 NUMBER 1

CORRELATION IN HIGH-SCHOOL SCIENCE COURSES

822

W. E. ANDREWS
Pana Township High School, Pana, Illinois

Analysis of the problem of the proposed correlation of the natural science courses in the high schools discloses the need of distinguishing between the natural sciences and the newer studies which are competing against the sciences for place in the high-school program.

Is not the alleged increase in the number of science courses in the high school more apparent than real?

The facts seem to be that the recent vocational pressure has increased the number of *studies* rather than the number of natural *sciences*. Agriculture, commercial studies, household arts, manual training, etc., are not *sciences*. Agriculture is no more a science than manual training; household arts, no more than bookkeeping, shorthand, and typewriting. Why not face the fact? Cooking, carpentry, typing, sewing, forge-work, cabinet-making, agriculture, shorthand, horticulture, animal husbandry, etc., are not *sciences*.

Under the modern pressure of the vocational in high-school education these vocational arts have sought admission into the program of the high school. English, history, mathematics, and

sciences were already seated there. Moreover, it had become the custom to count four as the high-school pupil's quota of studies. Where, then, should the entering wedge be inserted? By elimination, it fell to the lot of the sciences to receive the thrust. Cooking and sewing became household "science." Food production in its various arts also became "science." Thus by careless classification, under stress to find a place in the program, has arisen the idea that science courses have been greatly increased. The high-school sciences still remain botany, zoölogy, chemistry, physics, physiology, and physiography.

Readjustment of the high-school program to this vocational thrust can be easily brought about, not through elimination of subjects which are necessary for due consideration for all types of pupils, nor through syllabicated short-course combinations that grossly disregard the prevailing conviction as to the need of sustained, intensive study of each science undertaken.

The cry of overcrowded program arises by reason of the presumption that all pupils should study the same subjects. Just here is the menace of catching phrases and terms: "standardization," "uniformity," "stem courses," "general science," etc. These terms deceive. Certainly adolescents are sufficiently mature to begin selective study to accord with the type of individuality. Uniformity is justified in the studies of childhood by reason of the general nature of the training that is required; but uniformity must not be permitted to continue and hamper development of individuality, when the time plainly has come to differentiate school study to adapt it to individual ability, personal choice, and economic necessity. Standardization invents excuses; it is better to plan a program which will admit of the widest possible flexibility to fit as many types of individuality as possible.

Consequently to program the subjects in the high school into groups extending through the four years is an incompetent plan. High-school subjects offered should be grouped in single-

year offerings. The four-year group plan requires the child at fourteen to forecast his future educational program for four years at least—an utter impossibility. Few, if any, children at this age can either know, or be competently investigated by another to find out, just what subjects should be chosen for as much as one year ahead, not to speak of the impossibility of knowing through the four-year span.

Upon his entrance into high school no more should be asked of any pupil than to be programmed for one year, the programming for the ensuing year being left to be done under the new disclosures of awakening natural ability, personal trends, and economic necessity.

Again, pupils who can attend the high school for but one year should be induced to attend at least that long for the betterment of their chances in life through education. This incentive will be found in a program that provides the pupils with a complete year of achievement independently of the subsequent year's work. It must be made certain that such pupils know that the single year of study as offered comprises a complete unit in itself, and not a less worthy fragment of some other unit which has value only when the succeeding year's work is completed.

The four-year step is an administrative outrage. Thorndyke in *Education*, page 136, says: "The system of forcing a crucial election of the bulk of four years' work upon the pupil at the very start encourages free, unintelligent election in its worst form. This so-called 'required' system is really a system of the most extended election of the whole course in a lump, and at the worst possible time, when the pupil can know nothing about the offering, and less than at any later time about his own capabilities."

The proposal to offer "stem," or "general," science courses to all high-school pupils antagonizes two essentials in high-school education:

1. These stem, or general, science courses comprise composite, brief abstracts from several sciences which are compressed into relatively unimportant brevity, shallow superficiality, and pretentious vacuity. At this time, so long after thirteen-week courses in sciences have been discarded because of the inadequacy of such brevity, it would be worse than disregard to indorse such modification of the discards as would change weeks to days! Rejection of the condensed compounds must follow.

The minimum essential year-course unit in each science is in accord with the findings of present experience. Intensive study of one science, protracted until the essentials in subject-matter have been learned and mastery of characteristic processes has been achieved, accords with the present view. The half-year course, even, is a subterfuge, maintained to make a showing of doing more than the actual facts warrant. The single-chapter courses which comprise the stem, or general, science courses are far worse and should not be countenanced.

2. That all high-school pupils should study the same course in "science" violates the fundamental requirement that individual differences and preferences must be regarded. Any competent investigation as to why pupils do not enter the high school, or, having entered, soon leave, discloses the verdict: "I do not care to study what is offered there." Regardless of the uncertainty of the pupil's line of reasoning, or of his avenue of information, whereby he determines his choice of studies or rejection of studies, it still remains true that a wide variety of studies must be offered if pupils are to be effectively appealed to by the high-school program.

The uniformity of the elementary school cannot be continued in the high school. If promoted pupils are to be induced to enter and to remain in the high school, individual ability, personal preferences, and family economic necessity must be met with a great variety of studies offered. The diversity in

the college program rather than the cramping uniformity of the elementary school should be the model.

Just now during the transition of the high school from its former position as the uncommon school for the exclusively elect, to its destined place as an integral and indispensable part of the great common school of all the people, the high school must make the advances toward rapid and complete realization of the present trend. The appeal of the high school must win all pupils, not merely the few of traditional tendencies educationally. Until all parents are obsessed with the call of the high school as the upper third of the common school of the common people and realize that the common school includes all the twelve grades, it is necessary to intensify the appeal to many parents by offering many different subjects in the earliest years of the high school.

Instead of a variety of science courses in the later years of the high school, the variety should be offered in the earlier years. The diminished enrolments in the upper years preclude variety of year-courses there. Ordinarily the enrolment is almost as large in the first year of the high school as in both the third and the fourth years.

Keeping in mind that the vocational subjects are not sciences, nor competent substitutes for the sciences, it is an easy matter to provide for both the sciences proper and for these vocational subjects in the program of year-courses offered in the high school.

YEAR-COURSES FOR NINTH-GRADE PUPILS

ACADEMIC	VOCATIONAL
Algebra	Agriculture
Botany	Arithmetic
English	Household Arts
History	Mechanical Drawing
Latin	
Modern Language	
Physiography	

YEAR-COURSES FOR TENTH-GRADE PUPILS

ACADEMIC	VOCATIONAL
English	Agriculture
History	Bookkeeping
Latin	Household Arts
Modern Language	Manual Training
Plane Geometry	
Physiology	
Zoölogy	

YEAR-COURSES FOR ELEVENTH-GRADE PUPILS

ACADEMIC	VOCATIONAL
Chemistry	Agriculture
English	Bookkeeping, Advanced
History	Household Arts
Latin	Manual Training
Modern Language	
Solid Geometry and Advanced Algebra	

YEAR-COURSES FOR TWELFTH-GRADE PUPILS

ACADEMIC	VOCATIONAL
Civics and Economics	Agriculture
English	Household Arts
Latin	School Management and Teaching
Modern Language	Stenography and Typewriting
Physics	

Following the common 8 – 4 plan, and neglecting the 6 – 3 – 3 plan, for the sake of simplicity, the foregoing plan is basic for programming the year-courses offered into four groups each to correspond with its appropriate year or grade of the high school.

Agriculture should be offered in high schools which are mainly rural; in the strictly urban high schools a corresponding trade—the dominant one in the community—should be offered in its stead.

Each pupil is to be classed as fast, medium, or slow, according to his record in achievement. All fast pupils are to enrol

in five year-courses, three of which at least are to be of the grade or year in which the pupil is registered; the other one or two may be selected from the grade-group next above or below the one in which the pupil is registered.

All medium pupils are to enrol in four year-courses, three of which at least are to be of the grade-group in which the pupil is registered; the fourth may be selected from the grade next above or below that one.

Slow pupils may enrol in three year-courses, if it is necessary to compensate thus for their lack of ability. One of the year-courses may be selected from the grade next above or below that in which the pupil is registered.

Fast pupils may be graduated after having credited out in fifteen year-courses; though they may elect to graduate after four years during which they have credited out in a minimum of nineteen year-courses.

Medium pupils may be graduated after four years provided they have credited out in sixteen year-courses.

Slow pupils are graduated after five years provided they have credited out in a minimum of seventeen year-courses.

A simple system of standards for determining the class—fast, medium or slow—to which each pupil belongs, and for advancing, or reducing to a lower class, has been worked out and will be outlined in case the desire is made known by any interested person.

Which of the year-courses in any grade shall be prescribed must be determined by the individual pupil's plan for a high-school education. This must be an individual matter, and not a prescription just for the love of domination. It is far more important to assist a pupil to discover his individual plan for a high-school education than to enforce a rigid system of prescriptions. To be concerned to show the pupil *his* way, having already made provision for that way, is a matter of far greater consequence than to be able to force the pupil to go

your way regardless of the individual capabilities of the pupil, or because you have neglected to provide better.

The foregoing plan of high-school program of year-courses notably provides for the following, among other things:

1. Adequate recognition of individual differences in ability, preferences, and economic necessity; also sustained, programmed emphasis upon discovery of individual aptitudes.

2. Provision for whole year-courses by eliminating overcrowding. There is a place for as many year-courses as the school is able to offer. Additional year-courses may be introduced when the need arises, and those in vogue may be discontinued without disturbing the program in any particular.

3. Capable pupils are provided with sufficient work to keep them effectively occupied. Due recognition is given to the desirability of preparing such pupils quickly for the university should there be special reason why the pupil complete his university course as soon as possible. Moreover, the plan constitutes each fast pupil into an influential leader whose example in industry and achievement will mean much as an incentive to the pupils who require urging.

4. Slow pupils are not sacrificed upon the altar of repeated discouragement through not passing. The need of the slow pupils to take more time is recognized. Maturity may come to their rescue so that they become able to do work which was beyond their reach while they were younger.

5. The choice of studies is but for one year at a time. One year is a long way in the future of any youth. For the next years's choice he requires all the light which the preceding year shed upon his path. More information upon the question of the right choice of studies will be gathered through this necessity of keeping the question open than would be the case if the four-year leap into the dark were made under the other system of offering the studies in four-year groups.

6. Occasion is provided for the high school to enter the sphere of vocational training to the limit of the local means and aims. Under the other plan preparation for college stalls preparation for life. Vocational studies are lined up with life's needs should the pupil desire to go no farther than the high school.

7. The plan is elastic, also, in providing both for small and for large high schools. The high school in a thinly populated community need not shrink its studies down to mere pretenses. The local needs as well as the pupils' necessities can be regarded. Different types of communities are provided for also by this plan. The strictly rural school, the school in a strictly manufacturing center or commercial center, or other type can easily modify the plan to suit its needs without radical disturbance of the school's program.

Again, is a general preview through a so-called stem science course desirable for successful work in the later science courses?

If the differences between the different sciences are considered, such a general science course is no more needed than is needed a general language course as an introduction to the later study of more extensive courses in German, French, and Spanish.

A four-part general science course, composed of four one-year courses in four different natural sciences, is scarcely more than a preview in natural science. The day of multiplex superficiality in high-school education should be assisted in its passing.

Contrast these two preview courses in science: (1) a general science course comprising four full year-courses, viz., a ninth-grade year-course in one science, a tenth-grade year-course in another, an eleventh-grade year-course in a third, and a twelfth-grade year-course in a fourth science, with (2) a general science course embracing one year of one-month courses in nine different sciences!

Desultory glancing at the materials and dallying with the methods of a natural science should end abruptly with nature-study in the elementary school. This end should be abrupt, and not protracted through the first year of the high school, under the name of general, or stem, science. Sauntering along the childish pathway, strewn with miscellaneous scientific phenomena, noticing, now this, now that, as the flitting occasions present phenomenon after phenomenon, is not science study. Such flitting, changeful mental focusings do not justly conform to the adolescent mind. The earlier childish inconstancy in attention is first to be supplanted in the high school by appeals from selected special groups of natural phenomena programmed for more prolonged intensive study. Unassorted nature-study intensifies the childish mindedness so characterized by the disorganization of its knowledge. The mind of the high-school pupil is ready for the training that comes alone from intimate, sustained, selected, circumscribed, and intensified study in definite fields of science.

The high school can offer the fourteen-year-old mind no more edifying, transforming, and eventful treatment than to subject it to its first full year-course in one definite science. The unity of a year-course in one natural science, its progressive unfolding of phenomena, so susceptible of scientific classifying, and its sequential arrangement of facts and law, of objects and casual conditions, of acquisition and application, provide all necessary introductory preparation at the right juncture and under the right controls. Hence issue an associated solidarity, an organized unity in knowledge, a classified whole: in a word, a science.

There is a magic eventfulness, a profound educational begetting, a vigorous intellectual reaction in intensive, prolonged, special study of a single science. The high-school mind, at the fulness of its adolescent blooming, awaits at fourteen the fertilizing, energizing reactions of psychological pollen that is

special, not general, sustained, not transitory, intensive and coherent, not extensive and chaotic. Desultoriness does not guarantee scientific unification. Hitting the striking high points gratifies a childish instinct for the novel, the outstanding; but it is for the adolescent mind, so teeming with anticipations of future needs, with hopes of future demands for trained minds, to qualify intensively so as to be found not wanting when the chosen field of enterprise at last is entered upon.

The stem courses proposed as a remedy for ignorance which is so conspicuous in the later year-courses in science will not meet expectations in this regard. The question why pupils, enrolled in a science year-course in the later years of the high school, do not learn in a satisfactory manner the assigned lessons through study-room and laboratory study, and under teaching guidance, may be much more easily and directly answered and managed than by proposing preparatory presentations in the preceding years. The same thing is noticeable in classes in every high-school year-unit. It also arises in the general science course as proposed. In a word, the real situation is this: Pupils do not competently learn and retain lesson assignments. What is needed is better immediate teaching rather than preparatory courses!

If a year's skimming over a later three-year field of subject-matter is deemed remediable, check it up by trying out a similar skimming at the first of a one year-course over the entire year's work as a preparation for the work to be done during the rest of the year. What will this do the pupils' interest?

On the other hand, if it were not for the increased cost for bindings, might it not be better to do in the science courses what is done in the study of English literature: use separate small volumes, each devoted to a whole sub-unit of the course, thus keeping the pupil in an attitude of interested expectation?

Previews jade interest by silencing the expectation of the novel. Why separate leaflets for readers are better for use than a whole reader collection in a single volume in the hands of the pupil from the first is evident. It is by no means certain, therefore, that what is aimed at in general science might, with better certainty, be more directly hit by an exactly opposite course of procedure.

The deficiencies in the pupils noticed in high-school teaching cannot be successfully ascribed to their preceding preparation; most generally such deficiencies are the common outcome of the immediate teaching. What is needed to remedy this condition is improvement of the immediate teaching, not planning to have it done before the teaching is supposed to be begun.

THE SUPERVISION OF HIGH-SCHOOL TEACHING

HENRY C. MORRISON
State Department of Education, Hartford, Connecticut

The control of a high-school enterprise ordinarily shows five distinct phases, for each of which effective provision must be made. These are in order: (1) business administration, including financial arrangements, maintenance of plant, provision of equipment and other material; (2) recruitment of the teaching staff; (3) supervision of teaching; (4) school management, including routine of pupil control and care, upbuilding and conservation of school tone, organization and control of pupil activities, etc.; (5) co-ordination with other school enterprises below and above, including administration of the curriculum.

The head of the school must in the nature of efficient administration be primarily responsible for the conduct of all five divisions. In Nos. 1 and 5, he is essentially a member of the administrative staff of the superintendent, who is the co-ordinating head of the entire school system. In the cases of Nos. 2, 3, and 4, he is essentially the principal and should be subject only to the inspectorial and reviewing functions of the superintendent. When the superintendent insists on doing the principal's work for him, either a new superintendent or a new principal, or both, is indicated.

Nor can we admit the theory that school men are not "business men" and therefore ought not to be intrusted with No. 1. School business is just as much a business by itself as is the corner grocery, or the manufacturing plant at the other end of town. There is no particular reason why the small trader on the board of education, or the large trader for that

matter, should be presumed to be able to handle the routine business of the school plant, of laboratories, library, texts, and supplies, any better than the school man who knows the difference between a retort and a lexicon and knows when a defective piece of plumbing is flooding the basement. If a principal is incapable of handling the routine business of a high school, he should become capable with all convenient speed or else resign. He is not fit to govern boys.

In small schools, say up to one hundred and fifty pupils, the principal can commonly perform all administrative functions, and in the smaller schools of this group do some teaching as well. As we go up the scale, the principal must be relieved of all regular teaching and increasingly have administrative assistance, until in schools of over two thousand he ought to have always at least two full-time, well-trained administrative staff assistants above secretarial grade for the supervision of teaching and for the management of the pupil body.

Of the five phases of high-school administration in the American high school, No. 4 is commonly well done, or at least receives its due phase of attention. No. 5 is meticulously done so far as college relations are concerned, but not invariably done at all with respect to the lower schools. Nos. 1 and 2 are pretty likely to become bureaucratic through defective centralization and the exigencies of school politics. No. 3, which is certainly the most vital division of the five, is more than likely to be severely left alone. With this division this paper has to deal.

What then is involved in the supervision of teaching?

First of all, the principal must be a teacher himself, able to take a class and teach a topic himself, able to hold a class up to, let us say, 90 per cent. or over participating attention. It is wholly impossible to supervise teaching unless the supervisor can teach. No amount of facility in devising measurements

to apply to teachers' work, and no depth of learning in the principles of the educative process, infinitely valuable as these may be, can atone for lack of actual classroom teaching power. The situation is analogous to that in the engineering world, where the accomplished graduate of the technological school so often fails simply because he cannot himself set up a good job in the shop. He may never have to, but if he can't he is no engineer.

But isn't this requiring the impossible? How can any principal or other supervising officer teach all of the many courses offered in the modern high school? He doubtless cannot, but, if he is a master of one of the half-dozen or more types of teaching in a full high-school program, he will at least have teaching sense and will feel the difference between good teaching and bad in the other types. More than that, the writer ventures the prediction that, in the new world which is upon us, whoever aspires to the position and emoluments of high-school principal will have to know a good deal about teaching in most, if not all, of the courses in the school over which he expects to preside.

What do I mean by a "real teacher"? Well, certainly not the vague and impossible kind of saint so often portrayed by the inspirational addresses at teachers' conventions and in many books about teaching. I mean simply a person who can make an obscure point in a science lesson transparently clear to an ordinary class, or one who can take a modern language class of beginners and within a measurable time have them reading and using the language, or one whose class in English literature establishes a run on the local public library.

Accordingly, it is sound advice to the young principal who desires promotion and to the student who expects some day to be a supervisory officer to begin by sitting at the feet of a real teacher and learning the art. Fortunately, real teachers

are not so rare as to be inaccessible to most, although their ratio to lesson-hearers in the high school is pitifully small.

We have spoken of the half-dozen or more types of teaching in the high school. What are they?

1. *The language-arts.*—This type includes: (*a*) the composition side of English; (*b*) foreign language; (*c*) stenography. The pedagogy and methodology of this group is essentially the same throughout and is well known, though it is little observed in the ordinary high-school classroom. It does not differ essentially from the pedagogy and methodology of first-grade reading.

2. *The logic type.*—This includes mathematics, grammar of both English and foreign languages, the technical side of music.

3. *The pure practice type.*—This includes typewriting, penmanship, that part of mathematics which requires merely "automatic facility in execution," the instrumental and vocal side of music. The psychology of this type is adequate and familiar to students. The pedagogy is fairly definite, though it needs much correction by checking up with the underlying psychology, such, for instance, as has been done and is being done for reading on the basis of the studies of Dodge, Huey, Dearborn, Judd, and others.

4. *Science.*—This includes the whole region of natural and physical science, much of household and mechanic arts, economics, government.

5. *Appreciation.*—In the secondary school this type of teaching includes very definitely literature as such, music in its emotional aspect, probably history, and phases of all types except No. 3.

6. *The shop type.*—This covers wood and iron manipulation, cooking and sewing, laboratory manipulation, accounting.

We have also used the term "participating attention." Both because the practical bearing of the term may be obscure

and because the term has a very practical bearing on supervision, let us clear it up a bit.

As the supervisor passes from room to room, he will be pretty likely to find there rather definite kinds of situations.

First, he will very possibly find a class most of the members of which are listless, dreamy, the boys in slouching attitudes, the recitations mechanical and incredibly incomplete and inaccurate. There is neither attention nor participation. Such work is of course a waste of time and the public money, and a demoralizing influence in the school. If the work cannot be improved, the teacher ought to be dismissed. If nobody can be found to change the situation, the work would better be given up altogether.

Secondly, he will find a certain number of rooms in which the classes are alert, upright in their seats, very quiet, and the recitations usually good. This is much better. There is attention, but little evidence of normal participation as the adolescent naturally reveals participation. This kind of situation is very likely to impress very favorably the lay visitor, but the school man ought not to be satisfied.

Thirdly, he will find some rooms in which the classes are alert and eager, eyes with a certain characteristic expression, the rooms somewhat noisy perhaps, pupils apt to make comments or to offer corrections, individual recitations good and rather lengthy, and some pupils inclined to hold the floor. There is no doubt of either attention or participation.

The teacher in the first and second kinds of classes will usually be found seated, in the third almost always standing.

In building up his school the principal will aim to bring all class work to some type of the third kind of situation. His success, other things being equal, will be very likely to be measured by (*a*) increased ratio of his membership to the

membership of the elementary schools from which he draws (*b*) rapid increase of the proportion of graduates to entrants.

The limits of this article forbid any full discussion of the problem of evaluating teachers in an objective way.

If the principal wishes to sort out his teachers from his lesson-hearers, a simple record of the percentage of participating attention found on his several visits is one good way to accomplish his purpose. If a series of visits to one teacher shows 100, 90, 75, 85, 60, 100, and to another, 20, 15, 10, 0, 25, 30, 20, he has an impressive objective comparison between two teachers as to their respective abilities to arouse and hold their classes—in other words, of their respective teaching power.

The evaluation of work accomplished, or of power gained, or of attainment secured, is another matter. A given standard assigned to a class cannot be credited wholly to the teacher who has had charge of the class for a given period. Other factors enter in, such as: (*a*) preparation of pupils; (*b*) adaptation of program and course to the mental age of pupils; (*c*) schedules being carried by pupils, and so on.

There are in general three methods of securing an objective measure of attainment.

In the first place, there are rapidly being formulated a series of standard tests, and standard methods of measurement. The principal ought to be interested and well informed about this development and competent in the technique of all the existing tests, but the young principal especially must be cautioned not to let his interest run away with his judgment. It is altogether probable that workable tests will be devised which will be applicable to the results of teaching of types 1, 2, and 3. It is equally probable that nothing which as yet has been foreshadowed will ever be successfully applied to types 4 and 5. Type 6 ordinarily furnishes its own tests.

Types 4 and 5, however, are measurable by the seeking out and noting of the modifications of behavior exhibited by the pupils out of the classroom and out of school. For instance, one of the best ways to test out the effectiveness of a literature teacher is to follow up the drift of his or her classes in withdrawals from the public library, not those books which are prescribed reading, but those which represent the free choice of pupils. If a given ninth-grade division, for example, shows at the beginning of the year, or early in the year, 20 per cent. substantial books, 40 per cent. trashy juveniles, and 40 per cent. no books at all, and at the end of the year 50 per cent. substantial books, 30 per cent. juveniles, and 20 per cent. no withdrawals, then the principal has objective evidence that his literature teaching is somewhat effective. Correspondingly, effective science teaching will nearly always reveal itself in the redirection which boys' interests show beyond the region of school control. Impeccable notebooks and good marks, or bad marks for that matter, are poor evidence, taken by themselves, of the effectiveness of the teaching.

There remains, of course, the time-honored examination as a test of attainment and a means of intellectual stock-taking, and the examination is not likely to be wholly replaced by other forms of testing. The disappointing returns from examinations within the school are likely to be due to the fact that the examination is pitched at a point not warranted by the teaching. It is either too hard or too easy to be a reliable index of the attainment of the class. Accordingly it becomes important for the principal to avail himself of some means of checking the examinations set by his different teachers. A simple method is the use of the properties of the normal distribution surface, which has in recent years become a veritable compass in the hands of the steersman of school work. If there is any considerable number of pupils taking the exami-

nation, and if, furthermore, the examination is a reasonable one, considering the teaching which has been done, the ratings given will arrange themselves roughly in a normal distribution. If now the examination was too hard, the numbers of pupils will be bunched toward the lower end of the surface, and the curve will be skewed in that direction. On the other hand, if the examination was too easy, the numbers will be bunched toward the upper end. The real index of the attainment of the class is the position of the mode of the surface on the axis of abscissas.

In general, measurements and similar methods of survey are intended to enable the supervising officer to secure a series of actual pictures of the situation from time to time existing in his school. He may then proceed to diagnose and take appropriate steps with some degree of assurance. The older school of physicians guessed at the disease and guessed at the treatment, the casual character of their procedure being mitigated more or less by successful experience. The older school of supervisors and principals, not entirely extinct, similarly tended to view a pedagogical situation in the light of their prejudices, which were often curious vestigial remains of the Puritan theology, and their procedure was one calculated to preserve their prejudices. The objective method produced the science of medicine, and it is likewise rapidly producing the science of school administration.

The principal, or in small systems the superintendent, still has an important problem, which he ought not to have, in the training of his staff. We have as yet few, if any, effective training institutions for high-school teachers, though we have many excellent institutions in which prospective teachers can become well versed in the theory of the educative process. Consequently, having sorted out his lesson-hearers, the principal must usually convert the promising material among them

into teachers. This is commonly, in the main, a question of technique, though technique ought certainly to be fortified with constant reading on the theory side.

The first and not altogether easiest step, then, is to lay out a workable reading course. As the writer sees it, this reading course ought to include three phases.

In the first place, the teacher ought to be and must be a constant student of the subject-matter which he or she proposes to teach. The first step to pedagogical respectability is ever-growing mastery of the courses which the teacher proposes to teach.

In the second place, the teacher ought to become interested in, and to become a student of, the whole educative process, from its biological foundations to the results of the most recent pyschological investigation.

Finally, there is in print more or less good discussion of the methodology of most of the types of high-school teaching.

Further than this, each of these teachers ought to be persuaded to undertake some good university summer work.

No amount of study of books or pursuit of university courses, however, will put a teacher in possession of an effective technique. Such is not their purpose, nor ought it to be expected of them. Technique comes through observing technique in others and practicing it under the observation of those who possess it. That is true in every profession and trade. How, then, is the principal to develop teaching technique in his "lesson-hearers"?

In the first place, as suggested above, the principal ought himself to be able to demonstrate in at least one of the high-school types of teaching. That means taking a class and teaching while the teacher observes, and repeating until the teacher under training catches the knack. Of course, considerable tact and good management are necessary to prevent

the process from discrediting the teacher with the pupils. In the larger schools a department head ought to be able to take the place of the principal.

A few state education offices maintain itinerant demonstration teachers in some subjects, and no doubt many could do so to advantage. If such agencies for rapid training are available, they should be used. If they are not available, the state education office should be urged to make them available. A variant of this opportunity is occasionally to be found in teachers' institutes, where a given instructor employs a demonstration class and perhaps improvises some method of giving attending teachers some brief practice.

A third common method is to send teachers to visit good technicians in other schools. Provided this plan is taken seriously, it ought to be measurably productive. But the occasional "visiting day" will hardly serve the purpose. Rather ought the visiting teacher to be given leave of absence for the purpose, for a week perhaps, and then later on for another week.

I realize that this attempt at training teachers in service is giving the principal a large order. It will prove a severe test of his powers of leadership, but if the principal is really what he purports to be, and not merely a lord high executioner of recalcitrant pupils whom his teachers cannot manage, he will rise to the occasion. And leadership means not only personal adaptation to the task which is largely inborn, but, also, a full and respectable acquaintanceship with the literature of his profession, which must be acquired and which itself tends to arouse native powers of leadership. Elementary teachers sometimes accuse their secondary colleagues of living in ignorance of their pedagogical deficiencies. Most superintendents will agree that the accusation is too often well founded. Conviction of sin is a necessary means of

grace. This is good psychology as well as sound homiletics. But the bringing of conviction is neither an easy nor a welcome task, for the judicial ermine is not at present conferred upon the high school principal. Fortunately, there has come into his hands in these latter days a more humane, if less august, investiture, for the impersonal method of objective measurement of the results of teaching furnishes a truthful mirror in which the principal may first behold himself and which he may then with confidence present to his subordinate.

COMPULSORY EDUCATION IN THE AMERICAN COLONIES

MARCUS W. JERNEGAN
University of Chicago

I. NEW ENGLAND (*Continued*)

As already implied[1], the reasons for passing that extraordinary series of laws on compulsory education by the New England colonies, 1642–71, lie deep in the religious, social, and political history of this section. The identical forces that determined this legislation also account for a series of laws, of the same period, relating to compulsory schools. Moreover, there were many other laws relating to religion, morals, etc., compulsory in character. There is not space here to analyze the subject in detail, but it may be noted that the laws in question were the work of religious oligarchies. The leaders may be thought of as occupying a relation to the people somewhat similar to that of the enlightened despots of the eighteenth century. Their purpose was to build up orthodox paternalistic commonwealths, in which every individual would be compelled to live in an atmosphere charged with religion, with a view to producing a self-conscious attitude of mind which would lead to the performance of religious, moral, and civic duties. Their purpose was to make this ideal practical by seeing that every child was taught to read—first to understand the principles of religion, in particular the Puritan brand; secondly, to know the capital laws that he might be a law-abiding citizen; and, finally, in order that he might become an intelligent citizen—that is, be able to read "other good and profitable Books printed in the English Tongue."

[1] See the first article of this series in *The School Review*, December, 1918.

The method of attaining these ends was through a most rigorous system of laws which regulated, in minute detail, the life of the individual as well as of the community as a whole; secondly, an elaborate system of courts and officials to carry out the laws; and thirdly, a system of penalties and punishments to be imposed by specified officials and courts on anyone neglecting the law, whether a private individual, a public officer, or a whole community as organized into a town or even into a county. It is only through an understanding of this system as a whole that we can appreciate the part that compulsory education and schools were expected to play in a very carefully thought-out and prearranged plan of life for every individual. The success of such a system depended largely on three more favorable factors which operated in New England: first, an educated ministry; second, compact population groups—the towns; and, finally, a homogeneous population in blood and religion[1]. The extreme care used in New England to keep out and "warn out" the undesirable citizen was one of the most important, although little appreciated now, of those factors which made this a workable system.

As to the reasons for these particular agencies for education, we may note further that a new country, where people were obliged to live under frontier conditions, demands at the outset material rather than cultural development. Most of the energies of the people were expended in clearing forests, building roads, providing shelter, food, wearing apparel, and the simple tools of industry. Parental education and that obtained through apprenticeship were popular agencies,

[1] For the character of the government of the New England Colonies compare W. B. Weeden, *Economic and Social History of New England*, Vol. I, pp. 68-69, 76-79. See also H. L. Osgood, *The American Colonies in the Seventeenth Century*, Vol. I, p. 212. Professor Osgood estimates that up to 1674 only one in five of the adult male residents of Massachusetts could vote for colony officers, viz., for the men who made the laws for the colony. Anyone voting or holding office had to be a church member. For further discussion of favorable factors, see two articles by the author, "The Beginnings of Public Education in New England," *School Review*, May and June, 1915.

because education could be carried on with little or no expense or loss of the labor of children and youth. With the system of home manufactures prevailing throughout this period, it is clear that compulsory education for all, through organized schools, would interfere seriously with the normal condition of life of large portions of the people in both of these respects. Add to all this the fact that education through apprenticeship helped to solve two more very important problems—namely, idleness or pauperism, and industrial efficiency or a supply of skilled workers—and it is evident that there were excellent reasons in New England for emphasis on these agencies of education.

Let us now follow the legislation of the New England colonies on the subject of compulsory education from 1671 to the Revolution. The period from 1675 to 1689 is one of transition and is marked by two principal events. The first was the breaking out of Indian wars, resulting in severe economic depression due to heavy taxes, destruction of property, and withdrawal of producers from industry[1]. Accompanying, and in part a consequence of, this movement, there was a marked decline in family government, a weakening of the religious bond, a decline in morals, and, in short, a general lowering of the tone and standards of society. This condition was well expressed by the General Court of Connecticut when reasons were given for the passing of several laws for the "suppression of some provoakeing evills." These laws were made necessary because of "the calamitous time of New England's distresse by the war with the Indians, in the yeares seventy-five and seventy-six." The legislation is significant and shows what difficulties towns would be confronted with in enforcing the laws on compulsory education. The evils to be remedied were[2] "prophanation of the Sabboth; neglect of

[1] See *Pub. Rec. Col. of Conn.*, 1678–89, pp. 496–502, for the cost of the war.

[2] *Ibid.*, pp. 147–48. These reasons, as stated, are found in the preamble of the act of 1684.

cattechiseing of children and servants, and famaly prayer; young persons shakeing of the goverment of parents or masters; boarders and inmates neglecting the worship of God in the famalyes where they reside; tipleing and drincking; uncleaness; oppression, in workemen and traders."

The reaction of the individual New England colonies to these conditions varied. The principal effect of the Indian wars was to weaken the enforcement of the laws on compulsory education, to prevent the passage of new laws, and greatly to increase the number of poor families unable to provide for the education of their children. Thus forces were set in motion that influenced the legislation of these colonies up to the Revolution, especially with respect to compulsory education of poor children only, through the system of apprenticeship. In this transition period no new law bearing specifically on compulsory education was enacted by any of these colonies, though acts were passed by Connecticut in 1676[1] and 1684[2] to enforce the laws on compulsory religious education, by Massachusetts in 1677[3], providing that Indian children bound out to the English should "be taught and instructed in the Christian Religion," and by Plymouth in 1685[4], giving power to selectmen, acting as a court, to bind

[1] *Ibid.*, 1665–77, pp. 280–83.

[2] *Ibid.*, 1678–89, p. 148.

[3] An act of 1677 declared that the "welfare, civilizing and good education of the said Indians and their children" was "a matter of great concernment." Indian children apprenticed to the "English Inhabitants" were "to be taught and instructed in the Christian Religion" (*The General Laws and Liberties*, etc., 1672, reprint of 1887, with supplements to 1686, pp. 51–52).

Pub. Rec. Col. of Conn., 1678–89, contains extracts of *The Acts and Proceedings of the Commissioners of the United Colonies of New England.* At a meeting held at Hartford September 5, 1678, an order of 1660 was revised. The new law provided for the apprenticing of Indian children to the English. With the consent of two commissioners, such children could be apprenticed to "godly masters, such as will teach them to read well, and bring them to Christian nurture." Such masters were required, once a year, to appear before the commissioners of some colony and give account thereof; "otherwise, the said apprentices are to be taken from their masters, and the request of the parents, and placed where they may be nurtured and educated as here provided" (*Ibid.*, p. 497). See also note 1, p. 36.

[4] *The Book of the General Laws of the Inhabitants of the Jurisdiction of New-Plimouth*, etc., Boston, 1685. Bridgham in his *The Compact with the Charter and Laws of the Colony of New Plymouth*, Boston, 1836, prints some of the laws added in the code of 1685, not found in the code of 1671. This law appears on page 297.

out poor children to service or as apprentices without the delay of six months called for by the law of 1671, the educational features of which still remained in force.

The second event of importance was the revocation of the charters of the New England colonies or the seizure of their governments, and the organization of all the territory under one government known as the "Territory and Dominion of New England," 1686–89, with Sir Edmund Andros[1] as governor. This is known as the Andros régime. In this period, the laws and courts of the various New England colonies, as the General Court of Connecticut put it, were, to a considerable extent, "disused"[2]. Laws were made by authority of the governor and council for the whole dominion. This régime, following the hard times of the period 1675 to 1686, had a serious effect on educational progress with respect to both compulsory education and schools. One act[3] passed by this government March 17, 1687–8, affected the laws of all the New England colonies on compulsory education. It, in fact, repealed those in force, because of the omission of compulsory religious and educational clauses in previous laws which applied to all children, including apprentices. This was

[1] The first commission of Andros, June 3, 1686 (in Bartlett, editor, *Rec. of R. I.*, etc., Vol. III, pp. 212–13), included Massachusetts Bay, New Hampshire, Maine, the Narragansett Country, and New Plymouth. By the second commission of April 7, 1688, Rhode Island and Connecticut were added (*Laws of New Hampshire*, Vol. I, pp. 226–34). Connecticut was not included in the first commission of Andros, but he declared October 31, 1687, that by order of the King "he took into his hands the Government of this Colony of Connecticott" (*Pub. Rec. Col. of Conn.*, 1678–89, p. 248).

[2] *Ibid.*, p. 251. In the instructions to Andros, April 16, 1688, laws were to remain in force and continue, within the Dominion of New England, if not contrary to the commission and instructions, and until other laws were passed. Instructions are printed in *Laws of New Hampshire*, Vol. I, pp. 224–44.

[3] *Pub. Rec. Col. of Conn.*, 1678–89, pp. 427–28. This is a general law regulating duties of selectmen, etc. The whole body of laws enacted by Andros and his council cover pages 402–36 of this volume. This made provision for new town governments to be set up in every town in the dominion. The selectmen, who were also appointed overseers of the poor, were required, with the consent of two justices of the peace, to levy taxes for the relief of the poor and, at monthly meetings, to make distribution of the same for three specified purposes; namely, for the maintenance of the poor, for setting the poor to work, and "for putting children apprentices." An annual accounting was to be rendered of money, stocks, etc., and "what apprentices they [have] put out and bound," to be examined and approved by two justices of the peace.

really a poor law and shows no evidence of interest in the mental or religious development of poor children. The law did not, of course, prevent the introduction of an educational clause in the indenture, but it did relieve all the towns of New England of any obligation to require a master to teach his apprentice to read.

With the end of the Andros régime in 1689 the regular governments of the individual colonies were resumed. Let us consider next, therefore, the legislation of the four New England colonies on this subject from 1689 to the Revolution. In 1691 Massachusetts was granted a new charter which changed the government and provided for the annexation of Plymouth Colony. In the first session of the new government an act was passed which continued in force to November 10, 1692[1], all laws which had been made by the "governour and company of Massachusetts Bay and the late government of New Plymouth." At the second session, in October 1692[2], a similar act was passed continuing such laws until "the general assembly shall take further order." The evident purpose of this legislation was to re-enact the whole body of law as set forth in the Massachusetts code of 1672 and that of New Plymouth of 1685. It will be remembered that these codes included the laws on compulsory education already discussed. Unfortunately, however, both of these continuing acts were disallowed by the Privy Council, August 22, 1695. The reason given was: "It hath been thought fit to repeal both the said acts. It being judged necessary that in any new Law to be enacted for the said purpose the Laws to be continued be therein expressed and particularly specified"[3].

[1] The charter of 1691 provided that all acts disallowed by the crown, within three years after they were laid before the Privy Council, should be, upon notice of such disallowance to the governor, repealed. A convenient reprint of this charter is in William Macdonald, *Select Charters, etc.*, New York, 1899, pp. 205–12. The continuing act is in *Acts and Resolves of the Province of Massachusetts Bay*, Vol. I, p. 27.

[2] *Ibid.*, p. 99.

[3] *Ibid.* See also *Acts of the Privy Council of England, Colonial Series* (London, 1910) Vol. II, pp. 841–42.

It is clear from this evidence that the Massachusetts code of 1672 and that of New Plymouth in 1685 ceased to be in force at this date (1695), and, therefore, the compulsory education laws for children and apprentices which had appeared in the earlier codes of these colonies. Massachusetts did not issue a real code of laws again during the colonial period. Her so-called codes issued from time to time, are reprints of the session laws passed between the dates when they were brought together into single volumes for convenience, excluding, however, acts passed from 1692 on, which had been repealed[1]. No law was passed between 1692 and the Revolution involving compulsory education of *all* children in either religious or book education. Such laws as were passed refer exclusively to poor children apprenticed.

The first act of this character under the new charter was passed at the second session of the General Assembly in 1692[2]. It gave power to the selectmen, or overseers of the poor, with the consent of the justices of the peace, to bind "any poor children" as apprentices. The officers were also to take care that all children should be brought up or employed in some honest calling which would be "profitable unto themselves and to the publick." One misses in this act the compulsory educational and religious features, as well as the mention of special officers and penalties for non-enforcement. But inasmuch as the former law on compulsory education was still in force, the assembly may not have thought it necessary to include these features. With the notice of the disallowance of the continuing laws, however, the foregoing law was the only one in force in Massachusetts, including the former Plymouth Colony, relating to the education of children through parents or masters.

[1] *Acts and Resolves*, etc., Vols. I, VII, IX. It may be noted that the committee appointed to prepare the edition of the collected laws of 1714–26 was instructed to omit all laws repealed or expired; and the committee appointed to prepare the edition of 1724 was ordered to omit "all such laws as are expired, have been disallowed or repealed."

[2] *Ibid.*, p. 67.

The next act, of November 27, 1703[1], remedied the omissions, in part, by declaring that the act of 1692 had been misconstrued as applying only to "children whose parents were receiving almes." The selectmen, or overseers of the poor, with the consent of two justices of the peace, were accordingly given power to bind out as apprentices all children whose parents the officers specified thought unable "to maintain" them, whether they received alms or were chargeable to the place or not. But an important clause was added, making an exception thus: "so as that they be not sessed to publick taxes or assessments, for the province or town charges." This clause evidently would prevent the apprenticing of the child of anyone paying a tax, however small, and, therefore, left to chance the question of his or her education. In the case of children actually apprenticed, it was required that provision be made in the indenture for their instruction, namely, "to read and write, as they may be capable." This would include girls as well as boys. Moreover, the officers mentioned "shall inquire into the usage of children bound out by themselves or their predecessors and endeavor to defend them from any wrongs or injuries." Selectmen, overseers of the poor, constables, or "tythingmen" could complain to a justice of the peace or the county court against a transgressor, who, on conviction, could be committed to the house of correction. This power, apparently, might be used to compel a master to abide by an educational clause of an indenture. It will be noticed that no money penalty to be imposed on officials, parents, or masters is mentioned, though this is one of the most characteristic features of the earlier legislation. This act was revised in 1710[2]. In the new law there was one important change, namely, that indentures should have a clause to the effect that only males were to be

[1] *Ibid.*, p. 538.
[2] *Ibid.*, p. 654.

taught to read and write and "females to read, as they respectively may be capable." This law remained in force[1] throughout the colonial period, and applied to the great majority of children apprenticed. It was supplemented by three other acts[2], but they involved only special areas and affected relatively few children and, except for one law, that of 1758, cannot be classed as compulsory acts.

Though this law of 1758[3] was limited in its application, it introduced for the first time since 1672 two important features of the earlier laws—a money penalty and specific power to remove an apprentice from a master who failed to give him the education specified in the indenture. Unfortunately,

---

[1] The law was renewed seven times at various dates, 1717, 1720, 1731, April 10, 1741 1760, 1770, and 1773 (*Acts and Resolves*, etc., Vol. II, pp. 74, 182–83, 579–80, 1053–54; Vol. IV, p. 324; Vol. V, pp. 39, 258).

[2] Between 1703 and 1775 three supplementary acts were passed making changes in the educational requirement of certain boys and girls apprenticed, but the class of children to be apprenticed, and the failure to include religious instruction, except in the case of Boston, and the lack of money penalties for neglect—all these remained unchanged. An act of 1735 applied only to the town of Boston (*Acts and Resolves*, Vol. II, pp. 757–58). This is an early example of special legislation for towns or cities where the conditions demanded special educational laws. This act provided that in the town of Boston the overseers of the poor should bind out into good families children who were unable "to distinguish the alphabet or twenty-four letters, at the age of six years," for a "decent and Christian education, as when parents are indigent and rated nothing to the publick taxes, unless the children are judged incapable, through some inevitable infirmity." Another special act of August 8, 1741 (*Ibid* Vol. II, p. 1067), applied to children of parents unable to maintain them living without the bounds of any town. Such children could be (not must be) apprenticed with the consent of two justices of the peace by overseers of the poor appointed by the justices of the county courts. The indenture was to contain a clause to the effect that males were to be taught "to read and write and cypher" and females to read only. There was no special provision for enforcement, and no special penalties mentioned for neglect. Moreover, relatively few children were affected by this law, since the great majority lived within the bounds of some town or district. This law was re-enacted in 1749 (*Ibid.*, Vol. III, p. 488) and then superseded by the act of 1758. A third act was that of July 4, 1771 (*Ibid.*, Vol. V, pp. 161–62), which amplified that of 1710. It applied to a class of children not mentioned in that act, namely, those coming into a town from another town whose parents were not residents of the town to which the child came. As such children tended to become a burden and expense, either for removal or support, overseers of the poor were given power to bind out as apprentices, with the consent of two justices of the peace, such children in order to provide for their support if they stood in need, and if they were subject to be bound out in their town from which they came by any law of the province. The indentures of males were to contain a clause providing for reading, writing, and ciphering, and those of the females for reading and writing, "if they shall be capable." None of these three special acts can properly be called compulsory, as they lack the mandatory clauses and the provision for penalties.

[3] *Acts and Resolves*, etc., Vol. IV, pp. 178–79. This law was reenacted in 1766, 1770 and 1775 (*Ibid.*, Vol. IV, p. 920; Vol. V, pp. 88, 460).

however, it applied only to "indented, bought or any way legally bound, servants or apprentice" living *outside* the bounds of a town or district, thus again, as in the act of 1741, affecting relatively few persons. However, when complaint was made to the county court that such servants or apprentices were neglected by masters or mistresses, "or that the education of such children in reading and writing and cyphering, according to the term of their indentures, had been unreasonably neglected," then such court after inquiry, and being satisfied that the complaint was just, could impose a fine of five pounds on a master or mistress and take such child from master or mistress, and, if the child were under age, the court could bind him or her to another person, males to twenty-one and females to eighteen years of age. If this law had been worded so as to apply to all children apprenticed, those living within towns as well as outside of towns, Massachusetts would have approached the ideals of her earlier legislation with respect to the education of apprentices.

It thus appears that the interest of Massachusetts in the compulsory religious and book education of *all* children suffered a marked decline from 1695 to the Revolution and that her laws on this subject affected only a relatively few poor children. Moreover, the question whether a child was to be apprenticed or not was left to the judgment of the selectmen, or overseers of the poor. In this sense all of these acts were permissive and are in great contrast to those of the seventeenth century. Formerly selectmen were compelled to apprentice poor children who were not taught to read, or suffer a fine of twenty shillings for neglect. None of the later laws provided a penalty on the selectmen or overseers of the poor for failure to apprentice. On the other hand, a penalty was not absolutely necessary to induce selectmen or overseers to bind out poor children as apprentices. The towns were always much worried about the increase of pauperism, and

selectmen would feel the pressure to get rid of the expense of the support of the poor if opportunity offered. The system of apprenticeship was one sure method of relieving the town of all, or a great portion, of the burden of supporting or of educating a poor child. Once a child was apprenticed, however, he was, by law, to be given some book education, and since indentures were enforceable in the courts, and the principal act provided for a penalty—imprisonment for a master who neglected the law—the legislation retains a large measure of compulsion.

When Connecticut resumed her government May 9, 1689[1], the General Court voted that all laws which were in force when Andros took possession of the government should again be in full force until further alteration. This decision revived the former law on the education of children. In 1690[2] a new act was passed in which the method of enforcement was greatly strengthened. The preamble states that former laws were ineffective and that there were "many persons unable to read the English tongue, and thereby incapable (of) to read the holy word of God or the good laws of the colony." The grand-jurymen in each town were ordered once in the year at least "to visit each family they suspect to neglect this order," and see whether all children under age and servants could read well the English tongue or be in a good procedure to learn the same or not." If they found neglect, they were to return to the next county court, the names of the parents and masters of children so untaught, and the guilty parents and masters should then be fined twenty shillings for each child or servant "whose teaching is or shall be neglected." An additional clause, however, declared that the fine might be remitted if it appeared to the satisfaction of the court that the parent or master or neighbors were unable, through

[1] *Pub. Rec. Col. of Conn.*, 1678–89, p. 251.
[2] *Ibid.*, 1689–1706, pp. 30–31.

"incapacity," as the law reads, to cause them to be taught or the children or servants unable to learn.

In the law appearing in the code of 1702 several important changes occur. The revised law is based principally on those of 1673 and 1690. We may note, first, that the fine of twenty shillings for neglect could be imposed on parents and masters, as well as on selectmen and grand-jurymen, "for the use of the poor of the Town." The agency to determine the violation of the law was "any one Assistant or Justice of the Peace to issue and determine the same" instead of the county court. Grand-jurymen were particularly warned to be very careful in seeing to the education of children. Secondly, the selectmen, with the advice of the "next assistant or justice of the Peace," could take children and apprentices from parents and masters "negligent of their Duties, in the particulars above mentioned," and place them with others "to the end they may be instructed and forced to submit to Government." Thirdly, questions on the catechism were to be propounded by parents and ministers, the latter instead of the selectmen as formerly. This law relieved the grand-jurymen of two duties required by the act of 1690: first, that of visiting, inspecting, and testing children; and, second, that of reporting the names of such as could not read to the county court.

All these changes, however, are less important than one which resulted in the omission of a clause appearing in both of the previous codes of 1650 and 1673. According to the original law, masters of families must catechize their children and servants weekly in the grounds and principles of religion, but if unable to "do so much," they must compel children and apprentices to memorize "a short orthodox catechism." In the code of 1702 and the subsequent codes to the Revolution[1],

[1] *Acts and Laws of His Majesty's Colony of Connecticut in New England*, etc., Boston 1702. The title is "An Act for Educating of Children." The code of 1715 is a reprint of that of 1702, and this act is found on p. 16 of this code. See note 1, p. 36.

the former clause relating to weekly catechizing is omitted, and the latter follows the provisions relating to the requirement for book education. The result was that parents and masters "unable to do so much" namely, to teach a child "perfectly to read the English tongue" by themselves or others—had only to see that such children and apprentices committed a catechism to memory. Thus as Massachusetts failed to re-enact her general compulsory education act, as found in the code of 1672, so Connecticut, by this revision greatly weakened her law, for illiterate parents or masters could plead that they were "unable" to teach reading. In such a case the officers responsible would have no power to fine a parent or master for such neglect; nor would it be legal for the selectmen to apprentice a child or take an apprentice from a master because of neglect of education, provided the child or apprentice learned an orthodox cathecism[1].

[1] Two acts were passed between 1702 and 1750 as follows: One was an enforcing act of October, 1715, and ordered judges and justices to execute laws, and selectmen to see that every family procured a Bible and in case of neglect to "make return thereof to the next authority"; Constables and grand-jurymen were to "make diligent search after and presentment of all breaches of the following laws of this Colony, 1. An Act entitled Children to be Educated," etc. (*Pub. Rec. Col. of Conn.*, 1706–16, p. 530). The second was a special compulsory education act applying to Indians. Complaint was made May 11, 1727, that the English having Indian children "put out" to them to be brought up "do neglect to learn them to read and instruct them in the principles of the Christian faith." It was therefore ordered that such do their utmost to teach them to read English and to catechize them. The penalty for neglect by masters and mistresses was severe, namely, a fine of forty shillings; and report was to be made by two grand-jurymen or selectmen, and then the negligent persons were to be summoned before an assistant or justice of the peace for judgment (*Pub. Rec. Col. of Conn.*, 1726-35, pp. 102–3). The title of the code of 1750 reads, "Acts and Laws of His Majesty's English Colony of Connecticut. etc., New London, 1750. The title of the law on children is "An Act for Educating, and Governing of Children" (pp. 20–21). In this law the wording is simplified, and the substitution of learning a catechism for "Ability to Read the English Tongue well" is even more plainly indicated. The reading is, "That all Parents, and Masters of Children, shall by themselves, or Others, Teach, and Instruct; or cause to be Taught, and Instructed, all such Children as are under their Care, and Government, according to their Ability to Read the *English* Tongue well; and to know the Laws against Capital Offenders: And if unable to do so much, then at least to Learn some short Orthodox Catechism without Book, etc." Another change was that of levying the penalty of twenty shillings only on the parent and master, thereby relieving the selectmen and grand-jurymen of liability to a penalty as was the case 1702–50. The method of trial and conviction and the provision for apprenticing remain the same as in the code of 1702. The purpose of apprenticing is made more specific, namely, "to the end they may be suitably Instructed, Employed and Governed."

It is apparent that there is considerable divergence from 1690 to the Revolution in the legislation of Connecticut as compared with that of Massachusetts. The most notable difference is the fact that in Connecticut, not only is compulsory religious instruction retained, but it is even made a possible substitute for book education. Secondly, the system of money penalties to be imposed on officers or parents is retained throughout the period, as well as the penalty of removal of the child from a parent or master for neglect. We may note also that the emphasis remains, as formerly, on religious and mental education. We have no series of laws in Connecticut, for example, comparable to those of Massachusetts relating specifically to the education of poor children through apprenticeship. Finally, the law applied to *all*, not merely to poor children. Connecticut did not take for granted, for example, as did Massachusetts, that every parent paying a tax might be depended on to have his child taught to read.

It was not until January 17, 1766[1], that New Hampshire passed an act involving compulsory book education. The preamble states that poor people "neglect the care and Education of their Children." The selectmen or overseers of the

[1] *Laws of New Hampshire*, Vol. III, p. 391. New Hampshire, by a concurrent vote of the Council and Assembly, May 10, 1712 (*Ibid.*, Vol. II, p. 115) declared that neglect by parents and masters in instructing youth was causing "Ignorance, ill Manners and Irreligion." Therefore it should be lawful for selectmen with a Justice of the Peace to examine "all Youth of Tenn Years of Age whether they shall have been taught to Read and All those which cannot Read at Said Age to binde out to good Masters who shall be Obleidged to Learn them to Read and write till they shall be of Age." This is only partially compulsory, since it merely gives power to, does not compel, selectmen to act. If, however, a child was bound out, there was compulsion on the master to teach his apprentice to read and write. No penalty for neglect, however, was provided for, either money or removal of the child. The motive for this vote was primarily educational rather than economic. This vote was not incorporated into a formal law and does not appear in any of the codes giving the laws in force at subsequent dates. A law passed May 2, 1719 (*Ibid.*, Vol. II, p. 340), for regulating townships gave power to the selectmen, or overseers of the poor, to see that children were brought up to "Some honest Calling which may be profitable to themselves and the publick." They were also ordered, with the assent of two justices of the peace, to bind any poor Children belonging to Such Town to be Apprentices where they shall see convenient, and indentures were made legal. No penalty was provided for neglect, and no book or religious education was specified.

poor, with the assent of two justices of the peace, were, therefore, given power to set to work or "bind out as Apprentices . . . . all Such Children . . . . whose Parents" were thought unable "to maintain" them, whether they received alms or were a charge to the town or parish or not. Overseers of the poor were ordered to insert a clause in the contract or indenture, which must be in writing, to this effect: "for the Benefit of Such Children; at the least that the Master be Instructed to teach Males to read and write, and the Females to read." The officers mentioned "shall inquire into the Usage of Children bound out by themselves or predecessors in said Office, and Endeavor to defend them from wrongs or Injuries." In the case of children not supported by the town, parents were to be directed voluntarily to bind out their children if they could not maintain them, and if they neglected or placed them with persons "Prejudicial to the advantage of the Child," then the officers could remove and bind them out as before. This act lacks the money penalty for neglect by either parent or officers, but a penalty of removal might fall on parents and masters who neglected the education of their children or apprentices, and when children were bound out, book education was required. The law as a whole is weaker in its compulsory aspect than that of Connecticut, but stronger than those of Massachusetts, particularly because it could be applied even to the children of parents who paid a tax.

Rhode Island alone, of the six New England colonies under consideration, did not pass any compulsory education law, though she enacted laws on apprenticeship[1]. The reasons for

[1] That of 1662 we have referred to. Her next act was that of April 1, 1741 (*Acts and Laws of His Majesty's Colony of Rhode Island*, etc., Newport, 1745, p. 236), which was in reality a poor law, giving power to the town council to "bind out as apprentices poor children who were likely to become Chargeable to the Town wherein they live." Indentures were made binding and effectual in law. This act was included in the code of 1767 (*Acts and Laws of the English Colony of Rhode Island*, Newport, 1767, p. 228).

the failure of Rhode Island are the same as those which account for her failure to enact laws for compulsory schools. Indeed, Rhode Island's legislation on other matters, such as religion, is in great contrast to that of Massachusetts, New Haven, Connecticut, and Plymouth. The principal cause was the early separation of church and state and the fact that a great variety of religious sects sought Rhode Island as a haven of refuge. The result was a weak central government, lack of unity of religious belief, and the tendency toward individualism—all of which hindered the enactment of general laws on compulsory education.

It is clear that the New England colonies agreed on the main principles of compulsory education where it was introduced[1]. First, all of them, save Rhode Island, finally accepted the responsibility for seeing that a minimum of education was given to all poor children, and in most of the seventeenth century to all children. Secondly, they agreed in making the parent or master the direct agency for teaching, though the option was given of employing others. In the seventeenth century the plan presupposed literate parents or masters, or else ability to pay for instruction—a large assumption, indeed. Such a conception of compulsory education is very different from the present plan of compulsory attendance at organized schools at public expense. Again, these New England colonies were agreed on the principle of adequate machinery for enforcing the laws. Responsible officers were named to locate negligent parents or masters and to test the education of children. The colonies were agreed in having masters and parents, or various responsible officers, presented to some competent court for trial if found negligent. They were agreed in providing

[1] There were numerous acts passed by the New England colonies relating to apprentices and servants jointly, involving their control, treatment, and punishment for offenses, not treated in this study, as they only remotely involved the education of children apprenticed.

for penalties to be imposed on the officials responsible for enforcement or on the parents or masters for proved neglect of the law. In some cases a money penalty was provided for, in others the removal of the child, and finally even imprisonment of the guilty person. All of the colonies except Rhode Island specified that the agency of apprenticeship for book education of poor children should be used. One cannot but marvel at the high ideals of the framers of these laws, the extraordinary completeness of the acts, especially with respect to the plans for enforcement, and the great superiority of the New England colonies over all others in enacting laws on compulsory education for all children before 1672.

We may also note that parental education and that obtained through the system of apprenticeship was under public control; selectmen, overseers of the poor, justices of the peace, and magistrates being the principal officers, and town and county courts the principal agencies for trial of offenders. Written indentures were the rule, which were recorded in town, county, or colony records. Because they were in the nature of contracts, and because they were in some cases also specifically declared to be legal, these indentures were enforceable in the courts. Practically all of these laws mention that males were to serve to the age of twenty-one and girls to eighteen. Children could be bound out by voluntary action of parents at any time, but this procedure and the enforcement of the indenture were matters of public control. It will be noted that the scope of compulsory education varied in the different colonies. Broadly speaking, in the seventeenth century the general requirement was reading only, plus some form of religious education, for *all* boys and girls, whether apprenticed or not. New Haven was the exception in requiring both reading and writing for boys from 1660 to 1665. In most of the eighteenth century only Connecticut required either

instruction in reading or religion for *all* children. Massachusetts required instruction in reading and writing only for boys apprenticed, and reading only for girls apprenticed, except in the case of the latter for the brief period 1703–10. The addition of "cyphering" for boys apprenticed, from 1741 on, was only for those living outside of towns and districts, or those entering a town from 1771 on, from some other town. The addition of writing for girls was only for those corresponding to this last case mentioned for boys. The requirement in New Hampshire, from 1766 on, was reading and writing for boys, and reading for girls, apprenticed, as in Massachusetts. Neither of these last mentioned colonies required religious instruction in the eighteenth century, and Rhode Island required neither book nor religious education at any time in the colonial period.

As a whole, the eighteenth century marks a decline in the efforts toward compulsory education. In the first place, emphasis is placed on vocational training and the maintenance of poor children rather than on the mental and religious education of *all* children, whether apprenticed or not. Secondly, there is a failure to make the apprenticing of poor children certain because of the omission of money or other penalties levied on officers responsible for neglect. There are good reasons for this difference of attitude toward compulsory education, but these same reasons also account for other changes in the educational development of the New England colonies in the eighteenth century. They will be discussed in detail at another time. We may note, however, the following: first, a weakening of the religious motive and in particular a decline in the influence of the clergy, quite apparent by 1676; second, the spread of population towards the outer boundaries of the towns and to the interior and frontier areas of the colonies, thus making enforcement of laws affecting all children very difficult; third, the effect on the second and third generations

of a frontier environment, that is, a decline in educational, religious, and moral ideals; fourth, the decentralizing tendencies of democracy which weakened the power of the central government and produced individualism—namely, opposition to minute regulation of private life; fifth, the great demand for industrial efficiency as the tendency toward manufactures, trade, and commerce developed, and as population increased, so that division of labor became more necessary, especially in the larger towns. It should also be noted that laws establishing compulsory town schools were enacted by most of the New England colonies, that the practice developed of providing free education at these schools for poor children[1], and that support by a general property tax, making schools free for all, was common from the second quarter of the eighteenth century. There was, therefore, less pressure to emphasize parental education[2]. It was, perhaps, assumed that as a result only poor children would fail to gain a knowledge of reading and that this class was theoretically provided for by the acts for education through apprenticeship. That this was

[1] An early case is that of the town of Salem which voted September 30, 1644, as follows: "Also that if any poore body hath children or a childe, to be put to school and not able to pay for their schooling, that the Towne will pay it by rate" (Town Records in *Essex Inst. Hist. Collec.*, Vol. IX, p. 132).

[2] The following table will show those portions of New England which were under compulsory education laws requiring some book education, during the colonial period:

FOR ALL CHILDREN

Massachusetts	1642–1695
Including New Hampshire	1641–1679
Including Maine	1652–1695
Including New Plymouth	1691–1695
New Haven	1655–1665
New Plymouth	1671–1691
Connecticut	1650–1702
Including New Haven	1665–1702
Optional book or religious education (including New Haven)	1702–1776

FOR CHILDREN APPRENTICED ONLY

Massachusetts (including Maine and New Plymouth)	1703–1776
New Hampshire	1766–1776

only a theory, however, and that large numbers of children living in New England in the eighteenth century were not taught to read, will appear in the study of the workings and enforcement of these compulsory education laws[1].

[1] A recent study of one phase of this subject, R. F. Seybolt, *Apprenticeship and Apprenticeship Education in Colonial New England and New York* (New York, 1917), a Columbia University thesis, is both inadequate and inaccurate. Owing, in part, to a failure to examine the colonial codes of laws, at least six *important* acts passed by the New England colonies on apprenticeship are not mentioned, and three of these directly involve book education. The author's failure to distinguish between the special and general acts (pp. 47–48 and p. 105) of Massachusetts, especially those of 1735, 1741, and 1771, results in an entirely wrong statement of the book education required in indentures of boys and girls. For all children apprenticed, except those living outside the boundaries of organized towns and districts, a relatively small number, the requirement from 1710–76 was reading and writing for boys and reading for girls, and not reading, writing, and cipher-ing for all boys from 1741 on and reading and writing for girls from 1771 on as is implied on p. 47. A most regrettable error is the statement (p. 48) that the "educational provisions of the Act of 1642 were re-enforced and amplified by the Poor Laws just reviewed. While these laws were primarily intended to take care of poor children, they applied to all children just as the earlier law did. Children whose education had been neglected were treated as poor children and bound out accordingly." Nothing could be farther from the truth. Not only did the acts of 1703 and 1710, the latter in force throughout the colonial period, specifically state the contrary, but the act of 1735, cited apparently in support of the above statement, was limited strictly to the town of Boston.

MEASURING EAST JUNIOR HIGH SCHOOL OF SIOUX CITY, IOWA

S. O. REMEM
East Junior High School, Sioux City, Iowa

When Professor E. E. Lewis of Iowa City published "Standards of Measuring Junior High Schools" (Bulletin 25), he may or may not have expected anyone to use them literally. But if every Junior High school in the United States should be revealed according to this standard, the result would be of inestimable value to those who are managing such schools and to those who are planning to establish them. Each Junior High school, so far, has been developed largely out of the needs of the locality, rather than out of conformity to a state or national standard, with the result that each school has developed some feature or other which could be of use or enlightenment to others throughout the nation.

Working upon this local basis, the management of East Junior High School of Sioux City, Iowa, was begun principally for the advantage it would produce at home. Its practices, regulation, and management are here being reduced to writing for the first time since the school was established in February, 1918. This will make possible a critical review of what has been begun and will make possible a checking according to the standards which Professor Lewis had gleaned from the practices of Junior High schools, up to the time he made his study.

This school has been started upon a basis of careful investigation of needs, rather than upon the copying of any other school in existence. Nothing that is old is ignored because it is old, and nothing that is new is welcomed just because it is new. Still there has been made a complete study of what has

been accepted and rejected elsewhere, and of what is theoretically applicable to this Junior High school. There has been no attempt to hasten toward a change unless local circumstances made that change necessary. No wide-sweeping or radical change has been made. Those few variations which have occurred will appear under the appropriate heading as concerned under the "standard of measurement."

I. ENTRANCE REQUIREMENTS

The requirement of entrance is normally the completion of the sixth grade here. Variations from this have been made, whereby pupils who have failed in only one subject may continue on condition that they do satisfactory work. In very few instances has there been any doubt as to the advisability of doing this. In case the pupil fails to do good work in this subject, he must go back to his sixth grade for the work in which he has been conditioned. It has not yet been considered expedient to draw from the sixth and fifth grades those who are past the age of twelve for special Pre-Junior classes. Present lack of room has been one of the deciding factors. It is not probable that arrangements can be made for these pupils except as they are dealt with in the lower six grades. However, the city school system maintains a Pre-Vocational school which is open to over-age boys of the fifth and sixth grades, in the fundamentals of Arithmetic, English, Manual Training and Occupations. Frequently these boys are placed in part time work and are placed in full time jobs upon completion of their pre-vocational work. These boys in some cases have continued in high school.

No prohibition has been made as to what should be the age of pupils when they enter, although twelve years seems to be the age at which the majority arrive. Not infrequently, pupils enter before they reach their twelfth year. Several pupils out of the present 432 have passed their seventeenth birthday.

II. CLASSIFICATION OF PUPILS

Classification has not yet been based upon any other standard than the completion of the required work. This is one of the respects in which East Junior High school prefers to be too conservative rather than too iconoclastic. All pupils are accepted at their school ranking, but are put back or advanced in subjects which show particular weakness or strength. Pupils who fail to make credits or who are weak in some subjects are urged to make up the deficiency in our summer school. In a few cases where pupils have been out of school at work, or because of indifference until they are too old for their present classmates, they are given a trial in the class ahead, sometimes only one or two subjects in advance, of the place where they left off. This advance, however, is always on condition. It rarely fails to inspire the pupils.

Those who have special "knowledge and ability to learn" (about whom Professor Lewis mentions classification of differentiated sort), those who have "special command of English" and those who have "natural capacity and interest" are usually ambitious enough to take care of themselves by summer school work and by insistence upon extra work in connection with the regular class periods. While the Senior High School of Sioux City has for more than a year used the proportional credit system, the Junior High School has not yet worked out any such arrangement. Some plan of the kind is likely to be employed soon.

Classification of pupils according to sex, occurs in the Manual Training and Domestic Training classes, while in the Physical Training and Penmanship classes it is used only because it is convenient there. There was some discussion about a similar separation in the Health and Physiology classes but for the present it seems to serve boys and girls best in their training for citizenship to keep them in mixed classes. In other classes there has been little thought about segregation of boys and girls.

III. GRADES INCLUDED

We include the seventh, eighth, and ninth years. In these three years it is possible for a pupil to accomplish as much as formerly completed in the seventh, eighth, ninth, and tenth grades. Algebra and Geometry of elementary type are introduced in the seventh and eighth; Latin is permitted in the eighth; a course in Occupations is offered in the last half of the eighth; and Manual Training and Domestic Training are required throughout the three years. Just what effect these changes and others which must follow will have upon the classification of pupils who are about to enter Senior High, will not be wholly apparent until the class which entered in February, 1918, goes through the last year of the Junior High School course. By that time corresponding changes will, no doubt, be made in the tenth, eleventh, and twelfth grades.

IV. HOUSING

a. The Environment. The three plans of housing the Junior High school are as follows: In the same building with the Senior High, in the same building with the Elementary school, or the Gary plan where all twelve grades are in the same building. Sioux City has chosen the fourth, that of housing in a separate building. Some authorities have decried this plan, but where it has been actually tried it seems to have been successful. Not having tried any other in Sioux City, we can not compare it with the three plans but the year of experience proclaims it satisfactory.

Four advantages have revealed themselves. First, pupils become dependable at once. They are thrown with pupils of their own age, all of whom have a spirit of enthusiasm and effervescence which is waiting for guidance. They respond readily to responsibility placed upon them. They can be depended upon to use as good judgment as pupils of senior high school age. The second advantage is that they are more

easily managed. They like organizations. They like to have presidents, captains, and managers. They like to feel self-sufficient and to feel that they are contributing to what is going on about them. The third point is that they have no one to spoil. In a grade school, the liberties which are justifiable for the seventh and eighth grade pupils cause most of the disciplinary problems. The imitating children of five to ten years use as their protection the statement that "the big folks always do it." In the Junior High School separately housed, special privileges can be given to the pupils, thoughtlessness and awkwardness can be overlooked, and their superfluous energy can be guided. A fourth advantage is that there is no one for them to imitate. They are permitted just to "grow." The oldest boys have not yet reached the age or development when they think it clever to be "rough." As freshmen, ready for the Senior High School where they would be insignificant, they can be used as leaders in what they now consider to be most worth while. They hold the home influence one year longer; they become grounded in it; and after they are one year older they are more likely to refuse to imitate what younger boys, given places of inferiority in the big school, might possibly think heroic.

b. The Building. East Junior High School is a building of fireproof construction, built at a cost of $100,000. It has twenty classrooms, not including four others which were designed for other purposes. The building has three floors of which the second is the main floor. This construction makes it necessary for pupils to climb only one and a half flights of stairs from the entrance door to reach the third floor, and to descend only one-half flight to the first floor.

The rooms are large and well lighted. There are no rooms at the corners of the building where cross lights might be possible. One whole side of each room is fitted with windows. All are equipped with adjustable drop shades so that, when

desirable, sunlight need be admitted only at the top. The rooms are heated by steam heat, regulated to 70 degrees by a delicate thermostat. All the woodwork of the building is dark antique oak. The floors of the rooms throughout are of hard wood, except in the halls where mosaic tile is used.

Of the twenty classrooms, two are equipped for Domestic Science and Domestic Art, with a small dining room between for practice-serving; two are equipped for Manual Training work; five were planned for Commercial studies, two for Bookkeeping and Business Practice, and three for Typewriting and other Commercial subjects; three for Science laboratory and classrooms; and eight were designed to accommodate regular class work requiring no special arrangements.

Already the regular classes have usurped two of the Science rooms, four of the Commercial rooms, and one of the Manual Training rooms in addition to the Domestic Science dining room. As a consequence the hope that size of classes could be maintained at 20, will have to give way to a normal size of twenty-five pupils. The rooms are designed to accommodate thirty pupils each without congestion.

A large room about 60 feet by 90 feet serves as Assembly room and Gymnasium. The floor can seat 500 persons and a balcony 90. Connected with the Gymnasium are the Gymnasium dressing rooms for boys and for girls, containing individual lockers for gym and street clothing. Eight shower baths are provided in each locker room. In the corridor of the third floor are 300 steel lockers for the apparel, books, and papers of the pupils. Each student has a key to his locker. Two small rooms at the corners in the front of the building are utilized one as a girls' rest room with emergency equipment and the other as a Library reading room.

The building is well equipped throughout. It is built on the unit plan so that an addition of equal size can be added without much change to present parts of the building.

Promotion is made at the end of every semester. All pupils who finish the required number of studies satisfactorily are promoted to the next semester's work. The advance is made by subjects and by the number of credits. It is now possible for the pupils to make 5½ credits each semester, making possible a total of thirty-three credits for the six semesters of the Junior High School. Even though a pupil fails in one subject and is required to repeat, he is permitted to go on in all subjects which have been satisfactorily done. Pupils may be advanced from one classification to the next even though one whole credit is missing, but if any fraction more than one credit is lost, the classification is lost. Although pupils who have previously missed credits have had their choice whether or not they should make it up by some special arrangement, it will likely become the policy to urge that all pupils maintain the standard classification.

Summer school is the principal make-up opportunity. Other arrangements have been made and will be made for those who are worthy of such consideration. The pupils who meet certain requirements for outside music study are given school credit for it in the ninth grade. More frequent promotion than that available under the semester plan, is not likely to be introduced, except in special cases with certain individuals who merit it.

V. KIND OF COURSES

There is no variation of courses in the seventh and eighth grades except that Latin may be chosen by certain pupils of the Junior Eighth classification. (The requirement is that these pupils average 85—"b"—in all subjects and that no monthly grade be below "b" in English. The pupils drop English for Latin, and the Latin is tempered by English spelling and English reading.) All pupils are required to study Language, Mathematics, History, Manual Training or Domestic Training,

Music, Penmanship, and one of the following subjects, corresponding to their class—Hygiene, Geography or Occupational Geography. Penmanship is required of nearly all pupils. Physical Training always has a place in the curriculum.

Beginning with the ninth grade, two diverging courses are offered. These are the Occupational and the General. The Occupational course, which differs through offering Commercial English, Commercial Arithmetic, General Science, and Typewriting, is designed for those pupils who must go to work before the completion of the senior High School course, or who are determined to enter business early. The General course is designed for those pupils who feel sure that they are going farther in school work.

Electives are interchangeable between these two courses. In the Junior Ninth pupils may choose two of the following: Physiography, General Science, Greek History, or Latin. In the Senior Ninth those choices are to be followed, except that Physiography is replaced by Physiology. While the Manual Training and Domestic Training do not form elective courses, they present such variety that they are worth mentioning here. The Domestic work covers Cooking, Sewing, Designing, and Household Art. The Manual work includes Mechanical Drawing, Designing, Woodwork, Tinwork, Metal Art Work, and Brick construction, and Printing. The Occupational Geography class, which comes in the Senior Eighth semester, offers a reasonable acquaintance with past and present Industry, and gives a broad survey of the occupational world. With the co-operation of the State University of Iowa through means of educational moving picture films, this subject promises to be interesting in its effect upon the entire school.

VI. DEPARTMENTALIZED INSTRUCTION

East Junior High School has struck the middle ground between the one-teacher-for-all-subjects plan and the special-

ized-teacher plan. Teachers must be prepared to take one group of pupils in two different subjects. Although Mathematics and English seem to be the wholesome combination from our standpoint, any two subjects may be combined, such as History-Hygiene, Geography-Mathematics, History-English, and others. Aside from this one requirement, teachers are permitted to have all other classes in their special work. This arrangement does not affect the Music Instructor, Manual or Domestic Instructors, and in one or two cases does not affect special teachers.

Pupils go from room to room; teachers keep the same room throughout the day.

While it is desirable for a teacher to keep the same class through the subsequent semester, the large number of irregularities arising from failures and diminished size of classes from other causes, make it impractical. This is one reason why greater stress is to be placed upon maintaining classification here.

"Promotion by Subjects" (as called for by the Standard of Measuring) has been discussed. "The Teacher's Advance" is brought about by requirements for specialization, by a comparative and progressive schedule of salaries, and by a mathematical salary recognition for summer school study done by teachers at recognized colleges or universities. "Enforcement of the Time Schedule" is maintained by an automatic clock system which rings for the passing and for the beginning of classes.

VII. PREPARATION OF TEACHERS

The requirements for the teachers of the seventh and eighth grades are two years' experience of teaching and completion of the Sioux City Normal Training school or completion of High School course followed by normal or college training. The requirements for the ninth grade are a college degree and two years of teaching experience. The

ideal preparation for the Junior High School is maintenance of the ninth grade requirements for all three years. At present many of the seventh and eighth grade classes are being taught by college graduates, one of whom is a Master of Arts and several others who are working toward that degree. Junior High school work calls for the best prepared, most ambitious, and most professionally enthusiastic teachers available.

VIII. THE STUDENT ADVISORY SYSTEM

A Home-Room-System whereby the teacher of each room of the first period in the morning holds the pupils responsible for conduct, attendance, study, and general attitude throughout the day in and out of class, is the basis of our advisory organization. This teacher is expected to be the guide, adviser, and friend to whom the pupil may come at any time on any pretext or need. While the home-room is primarily a part of the disciplinary organization, it has become inspirational and directive. "Welfare Period", thirty minutes in length, is conducted every Wednesday in the home-room. At this time the pupils are permitted to engage in any kind of activity, entertainment, or fun which meets the approval of the teacher. The games, jokes, debates, parties, funny stories, programs, current events, knitting, thrift campaigns, Red Cross work, parliamentary drills, elections, curio studies, and general good times have done much toward bringing about a comradeship between the teacher and pupils. The home-room teacher is the embodiment of the social, moral, civic, and educational guidance.

More directly occupational, stands the teacher of the Occupational Geography classes. While being concerned primarily with the Senior Eighth pupils, this instructor takes within legitimate province the occupational direction of the entire Junior High school. The Principal, the Instructor in Manual Training, and the Instructor in Occupational Geog-

graphy have assumed the responsibility of occupational and vocational direction. Lists of occupations open to boys and girls have been prepared to cover all important activities, over 100 for boys and about 85 for girls. A questionnaire designed to reveal pupils inclinations and choices has been prepared and will be placed in the hands of each Junior High School pupil. This when properly filled out, will be kept on file for reference. When deemed advisable, individuals will be interviewed and advised along what seems to be their bent. It is hoped that many pupils may be encouraged to make out a tentative line of progress and effort covering five or ten years ahead.

Assuming without much fear of contradiction that the school is the place where citizenship should be fostered, with reliability, industry, initiative, and relationship to the work-a-day world as some of the factors, it is hoped that soon the activities of the pupil's twenty-four-hours will be considered in estimating school standings. At least those activities must be considered by the three persons mentioned above in playing the rôle of investigators and advisers.

IX. SUPERVISED STUDY

East Junior High School started with the supervised study class-period sixty minutes long and a five minute passing period between classes.

During the first semester of experience with it, each teacher was urged to use individual judgment as to the best way of managing the study period. As a result a variety of splendid ideas has been gathered upon methods and devices of conducting the hour-class in each semester's work in every subject of the curriculum. Each teacher contributed in writing whatever recommendations and preferences seemed desirable. From these contributions has been worked out a summary discussion which should prove of advantage to

teachers unacquainted with the supervised study plan. Some of the principal points touched upon are the following:

1. How shall the period be divided?
2. What is expected of any teacher in the classroom?
3. How shall a teacher employ herself while pupils study?
4. What should be the manner of studying lessons?
5. How shall the class group be managed?
6. What conduct should be expected of pupils?
7. How shall the teacher handle the special subject?
8. How shall pupils of varying ability be managed and kept busy?
9. What is the basis of a teacher's merit under supervised study?
10. How should (or may) teachers contribute to the general policy?
11. What observation of teachers' work is desirable?
12. How may we test the efficiency of the supervised study system?

Nearly all teachers seem to be well pleased with the supervised study period of an hour in length. It lends itself to easy division, seems to be just long enough to satisfy the pupils, and is a good workable period. Teachers have caught the spirit of the group-guide and group-helper instead of feeling themselves to be the critic and boss. They have frequently expressed themselves as being rid of that "fatigue" which haunted them at the end of the day in regular grade school work. The supervised study plan is still under observation and development.

The nine points of the "Standard of Measuring Junior High Schools" cover the principal distinguishing features of Junior High schools. By following them through in this manner a great amount of clearness and definiteness is possible for new development. Such a study of itself must be of benefit to the school studied, and in a remote way be of value to others.

Educational News and Editorial Comment

THE GARY SURVEY

The General Education Board announces the publication of the various sections of the Gary survey. A full statement of the parts in which this survey will appear is as follows:

The Gary Schools. A General Account by ABRAHAM FLEXNER and FRANK P. BACHMAN. (207 pages and appendix, 25 cents.)

Organization and Administration. GEORGE D. STRAYER and FRANK P. BACHMAN. (128 pages and appendix, 15 cents.)

Costs. FRANK P. BACHMAN and RALPH BOWMAN. (82 pages and appendix, 25 cents.)

Industrial Work. CHARLES R. RICHARDS. (122 pages and appendix, 25 cents.)

Household Arts. EVA W. WHITE. (49 pages, 10 cents.)

Physical Training and Play. LEE F. HANMER. (34 pages, 10 cents.)

Science Teaching. OTIS W. CALDWELL. (About 75 pages and appendix, 10 cents.)

Measurement of Classroom Products. STUART A. COURTIS. (About 350 pages and appendix, 30 cents.)

The *School Review* is published monthly from September to June by the University of Chicago. It is edited and managed by the Department of Education as one of a series of educational publications. The series including also the *Elementary School Journal* and the *Supplementary Educational Monographs*, is under a joint editorial committee and covers the entire field of educational interests.

JOINT EDITORIAL COMMITTEE

CHARLES HUBBARD JUDD, *Chairman*
SAMUEL CHESTER PARKER
JOHN FRANKLIN BOBBITT

Articles and Editorials of *The School Review*
ROLLO LA VERNE LYMAN
FRANKLIN WINSLOW JOHNSON

Articles and Editorials of *The Elementary School Journal*
FRANK NUGENT FREEMAN
HARRY ORRIN GILLET

Reviews
HAROLD ORDWAY RUGG
ROLLA MILTON TRYON

Supplementary Educational Monographs
WILLIAM SCOTT GRAY
MARCUS WILSON JERNEGAN

ADVISORY BOARD OF THE SCHOOL REVIEW

WILLIAM MCANDREWS, New York City
JEROME O. CROSS, Fresno, California
I. M. ALLEN, Springfield, Illinois
H. C. MORRISON, Concord, New Hampshire
H. V. CHURCH, Cicero, Illinois
ALEXANDER INGLIS, Cambridge, Mass.
E. A. MILLER, Oberlin, Ohio
FRED C. AYER, Seattle, Washington
H. L. MILLER, Madison, Wisconsin

The first part has just come to hand as the *Review* goes to press. The other parts are promised in rapid succession. They may all be secured by addressing the General Education Board, 61 Broadway, New York City.

This survey will be read with very great interest. Two or three earlier attempts have been made to give a complete and impartial statement of the workings of that widely discussed system, but the earlier surveys have been meager because of lack of proper facilities for carrying on investigations. When the General Education Board announced two years ago that it would make a thorough study of the Gary system, the educational people of the country were encouraged to believe that the investigation would be carried out without any limitations of the sort that had marred the earlier investigations.

Comment on the first volume will be made in the next number of the *Review* and it is hoped that the subsequent volumes may also be included very shortly in the summaries to be presented in this journal.

THE ST. PAUL SURVEY

The survey of the schools of the city of St. Paul carried on under the direction of Professor Strayer and participated in by Professor Coffman, Mr. Prosser and others, has just appeared. This survey will have special interest because St. Paul is the largest and most conspicuous experiment of the commission form of government in the country, and the development of a school system under this form of government is a matter which concerns school people very deeply.

This is not a place for a detailed review of the survey. It appears immediately, however, on very casual examination of the report, that St. Paul has fallen very far behind the requirements of the city school system in the matter of buildings and is much in need of reinforcement of its educational activities

as well. A review to appear in a later issue will deal with the details of the situation.

INFLUENZA IN THE SCHOOLS

The extent to which public schools have been interfered with during the last few months by the epidemic of influenza is difficult to ascertain at this time, but reports from all parts of the country make it perfectly clear that the problem of rounding out the educational work of this year is a grave one which will require the highest ingenuity on the part of principals and teachers. In many cases the schools have been closed twice. In some cases the closing of the schools seems to have been carried out when it was the judgment of principals and teachers, as well as of a large part of the community, that it would have been equally safe for the pupils if the schools had been kept open and rigid medical inspection provided.

It is to be hoped that the whole matter of handling contagion in public schools will be gone into more fully in the future than it has been in the past. The old-fashioned plan of closing a school whenever infection appeared has certainly been discredited by the careful studies made by sanitary officers. Incidental evidences which have appeared during this epidemic justify the verdict that it is better for the school to be kept open under inspection than closed. For example, many schools found immediately after the Thanksgiving recess that the irregular practices of that period and the miscellaneous social gatherings to which children went were more disastrous for the health of the community than regular attendance on the public schools. The fact is that the ordinary family and the ordinary community do not know how to protect themselves against contagion as well as most well-organized schools. There can be no doubt that rigid medical inspection can be advantageously carried much further than it has been carried up to this time in most school systems.

Turning from the first point of the best methods of dealing with contagion so as to protect the community, we have still before us the very grave question of dealing with the educational problem that has arisen this year. Several alternative methods of dealing with the educational problem have been suggested. Undoubtedly may schools will curtail the Christmas vacation and the spring vacation in the effort to make up lost time. In some cases schools will continue for a week or more in June and July. The contracts issued to teachers this year contained in a number of cities a clause which makes it possible for the city to ask for the service of teachers beyond the ordinary school year. The closing of schools last winter on account of the coal shortage led boards of education in a number of municipalities to insert a clause to the effect that schools might be kept open in June and July in case any time was lost during the winter months.

The optimistic view taken in the statement made in the following paragraphs copied from a letter written by a school superintendent represents one of the types of effort which will be made to repair the loss.

> We are making rather a serious attempt to discriminate between matters of greater and lesser importance so that our pupils may not suffer next year from the loss of time this year. We have lost six weeks by the recent epidemic and expect to be able to make up little more than half of the time by means of shorter vacations and extending the length of the school term by two weeks, closing June 20 instead of June 6.
>
> It is hoped that our efforts to concentrate attention on the more important features of our work will give our teachers some needed experience in the way of exercising their judgment and discriminating between the essential and other material of not so great importance. If this should result in an intelligent notion on the part of our teachers of the advisability of concentrating on the high spots and developing powers on the part of the pupils rather than endeavoring to give a great amount of information, the enforced vacation may have some redeeming features. "It's an ill wind that blows nobody good."

In a number of cases complaint has been made by parents against the strenuous efforts which schools have made after the close of the epidemic to recover lost ground. It appears that in some cases instead of selecting the essential material for instruction, efforts have been made to require of the children lessons twice as long as those usually assigned. Such a failure to meet the problem by adjustment within the school throws too heavy a burden on the students. Teachers ought to recognize the necessity of discrimination and thus of carrying in part the burden of readjustment.

THE COMMITTEE ON SOCIAL SCIENCES OF THE NATIONAL ASSOCIATION OF SECONDARY-SCHOOL PRINCIPALS

President Lewis of the National Association of Secondary-School Principals has appointed a committee to canvass the country to find out what is being done in high schools in the way of instruction in the social sciences. The committee has as its chairman Mr. H. V. Church, Secretary of the National Association. The other members are Frank G. Pickell, Thomas J. McCormack, and W. E. Stearnes. Mr. Lewis who initiated the committee has been asked by the other members to serve, and Professor Judd of the University of Chicago has been invited to join the committee as a working member.

It is the purpose of this committee to send out very shortly to the members of the Association a request for information with regard to the courses now being administered in high schools along the lines of community civics or other types of study properly to be classified under the social sciences. History will not be included in the first work of this committee. It is hoped that the suggestions gathered from different high schools may be brought together by the time the Association holds its annual meeting in such a way as to make possible during the coming year the formulation of a general program

which shall stimulate the preparation on a large scale of social science material. The Association ought also to become the center for a comparative study of the results secured through these various social science courses. The demand for new material along these lines is very strong. Publishers are responding at the present time to this new demand by getting out books on civil government and related topics. School programs are being adjusted so as to give time to this new type of work. The difficulty which will appear in introducing this new subject is the common difficulty that attends the introduction of any new branch into the school curriculum. There are very few trained teachers who can take up the work and those who have any preparation are likely to have secured it in the advanced and, therefore, unavailable courses in social science administered in colleges. There will be a period of readjustment which can, however, be shortened if secondary-school officers will devote themselves vigorously to the problem of co-operative study of the school curriculum.

PRODUCTIVE PROBLEMS FOR HIGH-SCHOOL FACULTIES

The problem of providing suitable programs for meetings of high-school faculties is one which is difficult to solve. Some principals take the position that there is no need of attempting to bring the high-school faculty together except on occasions when there is a definite piece of legislation to be put through or a definite decision to be reached with regard to some matter of general school policy. On the other hand, there are principals who feel that it is necessary in order to keep up the professional tone of the school to insist on frequent regular meetings which shall discuss educational matters as well as routine matters of administration. A comparative study of the practices of the high schools of the country in this matter would constitute an interesting theme. In the meantime one

example of committee activity within a high-school faculty has been reported to the editors of the journal which seems worth while to review as an impressive illustration of the way in which both the interests of routine administration and professional study may be combined.

Mr. Bemer, principal of the high school of Sault Ste. Marie, Michigan, organized during the fall of 1917 a series of committees of teachers of the junior and senior high schools to study certain educational topics. The first of these topics to be reported upon in full was that of vocational guidance. The report was prepared in the form of a typewritten pamphlet, and the letter describing the whole enterprise indicates that it was a subject of productive faculty discussion.

In this report there is a summary of the literature on vocational guidance. In preparing this summary the various members of the committee became acquanited with what has been done in other institutions and in the bureaus of vocational guidance organized in several of the large cities. A questionnaire was then sent out to every boy and girl in the schools. This questionnaire asked whether the student had decided on his life work; if so, what the choice was; how they came to the decision; and how their work related to the decision thus reached. Other questions had to do with the desirability of organizing a regular plan for advising the students in the choice of a profession and in the selection of courses to meet their needs. The answers to these questions are tabulated in such a way as to give a very vivid impression of the situation in the schools and of the desirability of giving more information to the students with regard to the possibilities. For example, the range of choices of vocations is relatively small, indicating that the students do not know the possibilities of which they might take advantage.

The third part of the report prepared by the committee of the faculty presents in some detail plans for the organization

of a more effective system of vocational advice in the high school.

Mr. Bemer reports that the investigation had a very stimulating effect on all who were concerned. Students were led by the study to take a new interest in the problems covered, and the professional attitude of the faculty was very much stimulated by the results obtained. Other groups of the faculty are following up the same general plan in investigating other subjects on which reports will later be prepared.

THE FRENCH COMMISSION

Immediately following the tour of the British Mission on Higher Education came the representatives of France. The members of the French Commission have interested themselves in many of the same problems that were taken up by the Englishmen. In the last number of the *Review* a brief statement was made of some of the international problems which are before the country in view of the closer interest in educational matters between this country and the allies. In all probability an Italian commission will come within the next few months. The net result of all of these visits should be a more intelligent acquaintance between our country and the countries of Europe and a closer co-operation in matters of higher education. The French commissioners presented to audiences in different parts of this country the social and economic problems of France as well as the educational problems which were the major subject of their consideration.

CHICAGO DINNER

The annual Chicago Dinner held in connection with the meeting of the Department of Superintendence will occur on Tuesday evening, February 25, at the Auditorium Hotel. Notices of this meeting will be sent to as many of the former students of the University of Chicago as can be found on the

lists of earlier meetings of the Department, but it is hoped that this notice may serve to bring the matter to the attention of any who do not receive the circular which will be sent out.

The promise of a large meeting of the Department of Superintendence during the last week of February is very good. The central location of the meeting and the importance of the problems that will be discussed insure a general interest on the part of all school people in this gathering. Among the problems that will come up will be the plans of the emergency commission of the Association, the general plan for the reorganization of the Association itself, and the vital necessity which many administrative officers of public schools realize of providing additional revenue for the proper conduct of schools. Normal-school presidents will meet in their annual session just before the meeting of the Department of Superintendence. They will discuss the problem of providing teachers in adequate numbers and with proper training. Higher education will be represented, especially through the meetings of the new and vigorous organization of high-school principals. It is planned to give special emphasis to educational measurements and research through the holding of two public sessions of the efficiency officers of public-school systems. The other meetings which usually accompany the Department will hold their regular sessions. It is predicted that five thousand people will attend the meeting.

NEW YORK SOCIETY FOR THE EXPERIMENTAL STUDY OF EDUCATION

The present turmoil in Europe emphasizes the supreme importance of education for a democracy. The social and economic reorganization that impends after the war will necessitate a careful, scientific examination of our educational procedures, and unremitting effort to bring them to the highest point of efficiency. Realizing the need for scientific studies of

education, a number of prominent educators in New York City and vicinity have organized a New York Society for the Experimental Study of Education. It is hoped that the society will become a rallying point for all those interested in the scientific improvement of education. Among the members are Associate Superintendents Edson, McAndrew, O'Shea, Shallow, Straubenmuller and Tildsley, many district superintendents and principals of high and elementary schools, Professor E. L. Thorndike, of Teachers College, Professor G. D. Strayer, president of the National Education Association, Dr. Abraham Flexner, of the General Education Board, and many investigators connected with educational foundations. The society organized by electing officers as follows: President, District Superintendent William E. Grady; vice-president, Principal Stephen F. Bayne, Public School 5, Manhattan; secretary-treasurer, J. Carleton Bell, Brooklyn Training School for Teachers; members of executive committee, District Superintendent Arthur C. Perry, Jr., and Professor Truman Lee Kelley of Teachers College.

SECRETARY LANE'S PLEA FOR THE NATIONAL TONGUE

In a series of vivid questions included in his annual report, Secretary Lane voices one argument for making education a national concern.

There can be neither National unity in ideals nor in purpose unless there is some common method of communication through which may be conveyed the thought of the Nation. All Americans must be taught to read and write and *think* in one language; this is a primary condition to that growth which all nations expect of us and which we demand of ourselves.

What should be said of a world-leading democracy wherein ten per cent of the adult population cannot read the laws which they are presumed to know?

What should be said of a democracy which sends an army to preach democracy wherein there was drafted out of the first 2,000,000 men a total

of 200,000 men who could not read their orders, or understand them when delivered, or read the letters sent them from home?

What should be said of a democracy which calls upon its citizens to consider the wisdom of forming a league of nations, of passing judgment upon a code which will insure the freedom of the seas, or of sacrificing the daily stint of wheat or meat for the benefit of the Roumanians or the Jugoslavs, when eighteen per cent of the coming citizens of that democracy do not go to school?

What should be said of a democracy in which one of its sovereign States expends a grand total of $6 per year per child for sustaining its public school system?

What should be said of a democracy which is challenged by the world to prove the superiority of its system of government over those discarded, and yet is compelled to reach many millions of its people through papers printed in some foreign language?

What should be said of a democracy which expends in a year twice as much for chewing-gum as for school-books, more for automobiles than for all primary and secondary education, and in which the average teacher's salary is less than that of the average day laborer?

What should be said of a democracy which permits tens of thousands of its native-born children to be taught American history in a foreign lagnuage—the Declaration of Independence and Lincoln's Gettysburg Speech in German and other tongues?

What should be said of a democracy which permits men and women to work in masses where they seldom or never hear a word of English spoken?

Yet this is all true of the United States of America in this year of grace 1918, wherein was fought the second Battle of the Marne and the Battle of the Argonne Forest.

The cure for this condition, the machinery for Americanization, is to be found in our schools, and "if we once realize that education is not solely a State matter, but a National concern, the way is open."

Educational Writings

I. A BRIEF REVIEW OF THE CURRENT LITERATURE RELATIVE TO HISTORY AND THE TEACHING OF HISTORY IN JUNIOR AND SENIOR HIGH SCHOOLS

R. M. TRYON
University of Chicago

It should be said at the outset that this is the second of an anticipated series of articles by the writer on this subject, the first appearing in the *School Review*, November, 1917. The idea in each of these articles is to review the literature of the field in question which appeared the year previous to publication. The general plan followed in the first article was to consider the material under the headings "Textbooks," "Outlines or Syllabi," and "Pamphlets, Journals, and Reports." In the present article the material falls under the following heads: "Text and Source Books," "Syllabi, Manuals, and Reports," and "Charts and Maps." The material relative to the history teacher and the war has been omitted, since interest from now on will center in problems growing out of reconstruction rather than the type of war material that has appeared during the past year.

TEXT AND SOURCE BOOKS

Three new junior high-school texts in history and two changes in previous editions of old texts appeared during the period covered by this review. Eva March Tappan's book[1], which will no doubt find a place in the seventh year or the first year of the junior high school in most cases, is merely another addition to an already existing list numbering thirteen. All of these books, as most history teachers know, were written to conform to the Report of the Committee of Eight, which has had and is still having such extensive influence on history in the elementary school. As is the case with most of the books already in the field, *Our Ancestors in Europe* begins with chapters on Greece and Rome, which are followed by sections on

[1] *Our Ancestors in Europe.* Boston: Houghton Mifflin Co., 1918. Pp. vii+263.

the heirs of the Romans, pilgrimages, crusades, commerce, and the discovery of the Western world. There is nothing particularly striking in the general make-up of the book. It contains, as most other books in the field, a copious supply of rather well-selected illustrations. The study questions at the end of each chapter conform to the customary questions of this nature. The suggestions for written work are somewhat superior to those found in other books in this field. One feels after going through the book rather carefully that it is *another* book rather than a *new* book.

For the sake of information two issues of old books in the field of European background of American history should be mentioned. For selling purposes Benezet's *The Story of the Map of Europe*, published in 1916, was rechristened recently under the title *The World War and What Was Behind It*. The reader should not be misled by the fascinating title under which Benezet's book is now issued. The material was prepared in 1915 and has undergone no changes in the new edition.

Another old book which has recently appeared under a new title is Southworth's *A First Book in American History*, which first appeared in 1907. In the latter part of 1917 this book appeared under the title *A First Book in American History with European Beginnings*. There are four chapters in the 1917 edition which do not appear in the original text. These chapters have material on "Greece and Alexander the Great," "Italy," "The Germans," and "Britain or England." All these facts are important considerations for persons having the impression that the two foregoing books are new ones.

A much-advertised text at the present time in American history for Grades VII and VIII is Beard and Bagley's *The History of the American People*[1], which appeared in the early summer. The company's claims for this book are many. It is maintained that the text is the only elementary one that provides a course in the development of democracy in America; that it is not simply another textbook in American history, but a different one of a new type in accord with the present-day demands; and that the book contains the best treatment of the issues of the Great War yet offered for children of the elementary school. These are big claims which time and use must justify.

On close examination one is forced to conclude that there is not a great deal in the book to distinguish from other books of like nature. For example, some of the most characteristic features of textbooks in this field are chronological treatment by chapter with no regard to a general organization

[1] New York: Macmillan, 1918.

of the entire field; much use of bold-faced paragraph headings; questions, exercises, and problems for further study; lists of dates to learn; maps, illustrations, and the like. All these appear in the text under review. It should be said, however, that the chapters aim to contain the discussion of big topics, thus avoiding the encyclopedic treatment sometimes found in such texts. In all probability the book is better adapted to Grades VIII and IX than to Grades VII and VIII. The language may prove too difficult even for these two grades.

A book intended for use in the same grades as the Beard and Bagley and appearing about the same time is Hart's *School History of the United States*[1], a book which when thought of in connection with traditional texts in elementary American history and in connection with the Beard and Bagley may be said to be both radical and conservative, for which reason it may in the near future come to be a book in much demand. The approach, as in most other books in the field, is the chronological, one chapter following another without any overlapping except in a few cases since 1860, when two chapters are included in a certain chronological period. References, questions, maps, illustrations, numbered bold-type paragraph headings, are features of the book as they are of other texts in the field. The list of important books in the appendix is composed of works in many cases out of date and difficult to secure. There is no evidence in the text that the author knows of the many excellent historical books for children in the upper-elementary grades that have appeared during the past ten years.

In the field of senior high-school American history four texts have appeared since November, 1917[2], one rather radical in its treatment of the field, the others more or less conservative. Thompson has gone farther than any other text in the field in casting aside the chronological treatment and substituting for it the topical. This, in fact, is the chief characteristic of his book, which, it should be said, enables him to include a vast quantity of social and economic material—more in all probability than any text to date. Latané frankly states in the preface to his text that he has attempted to combine as far as possible the topical with the chronological method of presentation. Hart has followed the same method as Latané, with emphasis on the chronological before 1860 and on the topical after this date. West

[1] American Book Co.

[2] C. M. Thompson, *History of the United States* (Chicago: Benj. H. Sanborn Co., 1917); A. B. Hart, *New American History* (New York: American Book Co., 1918); W. M. West, *History of the American People* (Boston: Allyn & Bacon, 1918); J. H. A. Latané, *History of the United States* (Boston: Allyn & Bacon, 1918).

has adhered more closely than any of the other three to the strictly chronological treatment.

Each of the four books under review divides the entire field into a number of general periods, Thompson having three, Hart nine, Latané six, and West twelve such divisions, the wide variation suggesting the advisability of some getting-together on this point. Unfortunately, their general divisions of the field are not always co-ordinate, another feature which needs some attention.

In the matter of general merits, there is little to commend any one of these books above the other three. They are all characterized by such things as illustrations, maps, charts, questions, references, etc. Hart and Latané are a little more conservative than Thompson and West. Generally speaking, the arrangement of topics in the former two is somewhat better when the books are thought of in connection with their teachableness. West seems a master in the art of breaking his discussion up into many, many items, while Thompson has difficulty in keeping things in their proper historical setting. It can be said, however, that the past year has produced four texts in the field of senior high-school American history which maintain the previous high standard of texts in this field.

Two other textbooks for the senior high school should be mentioned here, the one in the field of modern European history[1] and the other in the old-time general history field[2]. In his *Modern European Civilization* Ashley has completed his two-book history of European civilization. The present volume begins with Europe in the early seventeenth century and comes down to the present. Since it follows the same plan of treatment as his *Early European Civilization*, a detailed discussion is not necessary here.

Fortunately for those interested in the field of general history, Professor Botsford finished a book in this field before his sudden and untimely death in December, 1917. In all probability his *Brief History of the World* is by far the best text in the general history field at the present time, and persons interested in a text in this field should not fail to examine it closely before deciding upon a book to use.

Two little books have just appeared containing excellent material on the Great War, one for the junior[3] and one for the senior[4] high school. Miss Tappan's little book contains ten chapters with the following attractive

---

[1] R. L. Ashley. *Modern European Civilization.* New York: Macmillan, 1918.

[2] G. W. Botsford. *A Brief History of the World.* New York: Macmillan, 1918.

[3] Eva March Tappan. *The Little Book of the War* Boston: Houghton Mifflin Co., 1918. Pp. vi+138. $0.60.

[4] R. L. Ashley. *The War and America.* New York: Macmillan, 1918. Pp. viii +103. $0.60.

titles: "The Spark That Exploded the Magazine," "The Dash Toward Paris," "Kitchener's Mob," "Modern Methods of Warfare," "The Troubles of Neutrals," "The War of 1915," "The War in 1916," "The United States Enters the War," "The Crumbling of Russia," and "The Americans as Helpers." Ashley has organized the material in his book around three big topics The first he terms "General," and it covers such problems as how Germany sought to dominate the world, how Europe was aroused against Germany, how the war came to America, and the defeat of Germany. The remaining two big topics are "Finance, Food and Clothing" and "Reorganization," both of which contain valuable and concrete material. It is certainly fortunate for teachers and pupils that two such excellent books are now available. They deserve to have a wide circulation because the material they contain is of utmost importance to junior and senior high-school students.

Two source books were published during the past year, one of the traditional type[1] and one of the parallel source problem type[2]. In Webster's *Readings* each chapter deals with a single epoch or personality and presents the work of a single author. The order is chronological, and the passages quoted are long enough to make a definite impression on the reader. Much of the material is of the secondary type, having as its chief aim the making concrete of the abstract textbook statements. It is quite probable that this book will supersede all others in this particular field, for it is a work of superior merit.

Some years ago Harper and Brothers began the Harpers' "Parallel Source Problem Series." The book by Professors McLaughlin, Dodd, Jernegan, and Scott under review is the fourth to appear in this series. Seven problems are presented in the book. They are: "The Battle of Lexington," "The Preliminaries of the Revolution," "The Power of the Courts to Declare a Law Unconstitutional," "Religious Toleration and Freedom in Virginia, 1689–1786," "Relation of Eastern States to the Development of the West, 1785–1832," "The Slavery Problem," and "Fort Sumter and the Outbreak of the Civil War." For the solution of each of these problems a number of sources is given, as well as a long list of questions, a statement of the historical setting of the problem, and introductions to the sources. Teachers of American history will certainly welcome this valuable contribution to the teaching literature.

---

[1] Hutton Webster. *Readings in Mediaeval and Modern History*. Boston: D. C. Heath & Co., 1918.

[2] A. C. McLaughlin and Others. *Source Problems in United States History*. New York: Harper & Brothers, 1918.

SYLLABI, MANUALS, AND REPORTS

Three syllabi have appeared recently, one in ancient history[1], one in mediaeval history[2], and one in European history[3]. In both of his syllabi Armstrong follows the same plan. In fact, some of the material is exactly the same, namely, several pages of introductory material on the notebook and how to study history. The general plan relative to the syllabi proper is first to present an outline of a topic; next to give a list of questions, which in turn is followed by suggested readings and occasionally by notebook suggestions. There is nothing new in form or content in either of Armstrong's syllabi.

Williams' *Syllabus of European History* was made to accompany Harding's *New Medieval and Modern History*. The material in this text has been organized by Mr. Williams under a continuous series of topics. In all, there are one hundred sixty-five of these topics. The outline of each topic is a combination of the informational, skeleton, and question. References are given at the beginning of each large division. Blank maps are also scattered here and there throughout the syllabus. A summary of all the books referred to in the syllabus is given at the end. While the outlines are based on Harding's text, they could be adapted to any text in the field without serious difficulty.

Recently there has appeared a manual for teachers of history in the upper elementary grades[4]. After four chapters which deal with general principles Miss Simpson presents a series of illustrative lessons in Grade VII. There are eleven of these lessons, which in turn are followed by seven illustrative lessons in Grade VII A. Both Grades VIII A and VIII B are treated similarly. Much emphasis is placed on such type lessons as the inspirational review, on how to study lessons, a red-letter day lesson, an expository lesson, a deductive lesson, an induction lesson, an habituation lesson, and a socialized lesson. Since each of these is worked out in detail, the book should be of considerable value to teachers in Grades VII and VIII.

There appeared in the two fields of history under discussion one report during the past year. Two journals published this report in full[5]. As

[1] R. D. Armstrong. *A Syllabus and Notebook for Ancient History*. Chicago: Atkinson, Mentzer & Co., 1917.

[2] R. D. Armstrong. *A Syllabus and Notebook of Medieval History*. Chicago: Atkinson, Mentzer & Co., 1917.

[3] C. H. Williams. *Syllabus of European History*. New York: American Book Co., 1918.

[4] Mabel Simpson. *Supervised Study in American History*. New York: Macmillan.

[5] "Progressive Requirements in American History for Junior and Senior High Schools," *School Review*, XXVI (September, 1918), 473 ff., and *Historical Outlook*, IX (November, 1918), 442 ff.

suggested by the title, the investigations of the committee were confined to the field of American history. Generally speaking, the report centers around progressive requirements relative to the general organization of the field of American history for teaching purposes in junior and senior high schools, maps to make, dates and events to know and remember, personages to know and identify, topics with which pupils should be familiar on completing the course, and general method of procedure. The committee made its report to the Department of History and Other Social Studies of Academies and High Schools in Relation with the University of Chicago, May 10, 1918. The writer of this article will be glad to send free of charge a reprint of the report upon request.

CHARTS AND MAPS

History teachers should know of the excellent historical maps that have recently been published in this country. Out here in the Central West two companies have been very active along this line. The Denoyer-Geppert Company[1] has rather recently placed on the market a series of maps in ancient, European, and American history. The editors of these series are Professors J. H. Breasted, S. B. Harding, A. B. Hart, and H. E. Bolton. Besides these three series the same company recently published a series of war-aims maps, which should still be in demand even though the war is over.

The A. J. Nystrom Company, also of Chicago, has recently published two series of maps, one in the field of ancient history, the other in mediaeval and modern history. In general character there is little difference in the maps in these two series and in the two mentioned above in the same field. Both companies sell the maps singly or in sets. History teachers should not fail to take advantage of the present interest in history and secure for their department an ample supply of material of this type. These companies will be glad to send descriptive catalogues on receipt of a request for them.

II. BOOK NOTES AND REVIEWS

Woodhull, J. F. *The Teaching of Science.* New York. Macmillan, 1918. Pp. xiv+249 $1.25.

The author of this book has been writing illuminating papers upon the use of natural science in education for more than twenty years. Some of the best of these are gathered together in this volume. While most of the

[1] 460 Ohio Street, Chicago, Illinois.

papers deal with the teaching of physical science, every science teacher will read the pages with profit and will chuckle many a delighted chuckle as he finds his difficulties so typically portrayed and the remedies so simply indicated. The book is primarily a plea for a return to the natural-history point of view in teaching science. The author says, "Certainly whatever we may profess in the prefaces of our textbooks, we are actually doing less in our schools today than we did fifty years ago to make sciences minister to the needs of our common life."

Throughout the book, and especially in the long chapters on the teaching of physical science from which the foregoing quotation is taken, the author points out topics and the method of handling topics so as to make our science "minister to the needs of our common life."

In no uncertain terms he makes evident that the university is an institution for the preparation of specialists and not for the preparation of successful high-school teachers. He pays his respects also to the laboratory work as follows: "The most unsatisfactory part of the physics requirement (or supposed requirement) has been the laboratory work. I say supposed requirement, for probably no one in any position to *require* has ever wished for such extremities of mathematical frivolities as many of the recent offshoots from the colleges have vainly tried to implant in high-school laboratories."

Some of the most interesting of the eighteen chapters of the book are two on the teaching by projects. From one of these the following quotation is taken. "If the two or three hundred 'fundamental principles' in physics, for example, are fundamental, why do intelligent people having once learned them forget them without regret? Why do engineers have little use and much contempt for them? Why do those engaged in research in fields of physics ignore them? Is it tacitly for purposes of mental dicipline that they are taught? Are students in schools and colleges made into scientists by learning the so-called fundamental facts, or by practicing the methods of a scientist in finding the solution of real problems?"

TRAFTON, G. H. *The Teaching of Science in the Elementary School.* Boston: Houghton Mifflin Co., 1918. Pp. x+243. $1.30

The author considers that the major aims of science teaching can be included under four aims: the avocational, the social, the hygienic, and the vocational. The latter he thinks may be committed in a book dealing with elementary science.

He believes that the proper material for science work is to be determined by the immediate interests and needs of pupils, not by the preparation for

an indeterminate future. The problem method of attack is the desirable method of procedure, and the problems must be those that are real to the child.

Parts II, III, IV, and V take up respectively the biological, agricultural, hygienic, and physical phases of science for grade pupils. Chapters in Part II suggest materials and methods to be used in teaching children about birds, insects, pets and domestic animals, trees, flowers, seed dispersal, and flowerless plants. Similarly, the other parts deal with various subdivisions of the main topics.

Chapters on the teaching of hygiene stress the formation of correct habits and give helpful suggestions and advices for accomplishing this.

Part VI, making up nearly one-third of the book, is an outline for an elementary science course by grades and by seasons. It is one that has been tried out by the author for several years in the practice school of the Mankato (Minnesota) Normal School. The book closes with a bibliography of three pages.

The author's point of view throughout is sane; his understanding of the child's mental processes is sound; and his suggestions regarding methods are very helpful. The book can well be followed by the teacher who desires a good course in nature-study and sound advice as to the methods of procedure.

HODGE, C. F., and DAWSON, JEAN *Civic Biology*. Boston: Ginn & Co., 1918. Pp. viii+380. $1.60.

This civic biology was announced by the publishers many years ago and has been looked forward to with great interest. The title suggests the point of view, namely, that there are large masses of information at our disposal which if only applied would make living much more agreeable. The author says: "Select the problems that your community needs to have studied most. A single problem actually worked out to a definite civic advance will be worth more educationally than a hundred problems memorized from a book." The problems selected for discussion are mainly those concerned with man's fight against the ravages of destructive plants and animals. The insect problem stated in chapter iii gives an appalling picture of the reproductive power of insects and of their destructiveness to crops. The following chapters make it apparent that birds are the chief reliance in combating these insect pests. Chapters on plant problems list the many injurious weeds and poisonous plants. Chapter x, on flies, and chapter xi, on mosquitoes, impress the student again with the fabulous rate of reproduction and the dangers that lurk in their power of carrying disease. There follow several other chapters on injurious insects. Chapter xvii

takes up the rat problem. Then come chapters that marshal an astounding array of facts regarding fungi, bacteria, and the diseases they produce in animals and plants. Next to pass in review are tapeworms, liver flukes, trachinae, and other animal parasites.

The book must leave a vivid impression of the many problems man is facing in his struggle to live and the need of concerted action to master them. But it is an ugly, not a beneficient, nature that faces the pupil; the pupil must feel that "nature is red in tooth and claw." The book may make him aware of the problems of civic biology, but it may also make him a confirmed pessimist.

CALDWELL, O W., and EIKENBERRY, W. L. *General Science*. Boston: Ginn & Co., 1918. Pp. xii+404. $1.28.

This is a revised edition of the *General Science* first put out by these authors in 1914. That a new edition is so soon demanded is good evidence that the book has had wide use. General science was and still is an experiment in the schools. The authors say in their preface: "It is also generally recognized that education by the use of science should tend to better understanding and better use of the types of scientific knowledge which relate to common experience. It is, therefore, the object of this course to develop a usable fund of knowledge about common things and helpful and trustworthy habits of considering common experiences in the field of science." General science deals with all sorts of common things as distinct from the special sciences that deal each with one sort of things. It is interesting to note what changes have been made in this revised edition on the basis of experience. The book is a third larger than before. The material of the first edition has changed little except as additions have been made. The major additions are in five new chapters, xvii–xxi, the first three on the use of electricity and the other two on elementary astronomy. In these chapters the material has been wisely selected and deals with the application of electricity to heating and lighting about the home, together with such simple facts of the universe as every intelligent person wants. A star map, showing the constellations whose positions are described, would add to the ease of locating these. The dial readings on page 208 are confusing, as the indicators point apparently directly toward the numbers rather than slightly to one side. The pupil will be likely to read the upper right-hand one 1,097 and the one below it 1,000,900 instead of as given in the diagram, and will wonder why his readings are incorrect.

UNIVERSITY OF CHICAGO E. R DOWNING.

III. CURRENT PUBLICATIONS RECEIVED DURING THE PAST MONTH

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

CARROLL, CHARLES. *Public Education in Rhode Island.* Providence: E. L. Freeman Co., 1918. Pp. 500.

DEWEY, JOHN. *Vocational Education in the Light of the World War.* Chicago, 1225 Sedgwick Street: Vocational Education Association of the Middle West, Bulletin No. 4, January, 1918. Pp. 8.

JACKSON, GEORGE L. *The Privilege of Education.* Boston: Richard G. Badger, 1918. Pp. 143.

KENDALL, CALVIN N., and MIRICK, GEORGE A. *How to Teach the Special Subjects.* Boston: Houghton Mifflin Co., 1918. Pp. xvi+310. $1.60

LEWIS, HOWARD T. *The Rural School and the Community.* Boston: Richard G. Badger, 1918. Pp. 91.

MANN, CHARLES R. *A Study of Engineering Education.* New York: Carnegie Foundation for the Advancement of Teaching, 576 Fifth Avenue, Bulletin No. 11, 1918. Pp. xi+139.

MATEER, FLORENCE. *Child Behavior. A Critical and Experimental Study of Young Children by the Method of Conditioned Reflexes.* Boston: Richard G. Badger, 1918. Pp. 239.

PETERS, CHARLES C. *Selection and Organization of Materials for a Course in "The Control of Conduct" for Secondary Schools.* Spring City, Pa.: The Inter-Borough Press. Pp. 120.

SEARS, J. B. *Classroom Organization and Control.* Boston: Houghton Mifflin Co., 1918. Pp. xii+300.

WEEKS, RUTH MARY. *Making American Industry Safe for Democracy.* Chicago, 1225 Sedgwick Street: The Vocational Education Association of the Middle West, Bulletin No. 5, October, 1918. Pp. 7.

BOOKS PRIMARILY FOR ELEMENTARY-GRADE TEACHERS AND PUPILS

ALLEN, WILLIAM H., and KLEISER, CLARE. *Stories of Americans in the World War.* New York: Institute for Public Service, 51 Chambers St.; Boston: Journal of Education, 6 Beacon Street, 1918. Pp. 176. $0.75.

BRYANT, SARA CONE. *I Am an American.* Boston: Houghton Mifflin Co., 1918. Pp. 159. $0.60.

FRYER, JANE EAYRE. *Young American Readers. Our Home and Personal Duty*. Philadelphia: John C. Winston Co., 1918. Pp. xiii+235.

GOLDBERGER, HENRY H. *English for Coming Citizens*. New York: Scribner, 1918. Pp. xx+236.

LASELLE, MARY A. *The Home and Country Readers*. Boston: Little, Brown & Co., 1918. Pp. 266. $0.65.

NORLIE, OLAF MORGAN. *Principles of Expressive Reading*. Boston: Gorham Press, 1918. Pp. 190.

SANFORD, CHESTER N., and OWEN GRACE A. *Modern Americans. A Biographical School Reader for the Upper Grades*. Chicago: Laurel Book Co., 1918. Pp. 208.

SINDELAR, JOSEPH C. *Merry Christmas Entertainments* Chicago: Beckley-Cardy Co., 1917. Pp. 160. $0.35.

———. *Father Thrift and His Animal Friends*. Chicago: Beckley-Cardy Co., 1918. Pp. 128. $0.50.

SMITH, JOHN F. *Our Neighborhood. Good Citizenship in Rural Communities* Philadelphia: John C. Winston Co., 1918. Pp. xi+262.

TAPFAN, EVA MARCH. *The Little Book of the War*. Boston: Houghton Mifflin Co., 1918. Pp. v+138. $0.60.

SNOW, BONNIE E., and FROEHLICH, HUGO B. *The Theory and Practice of Color*. New York: Prang Co., 1918. Pp. 53.

ZIEGLER, SAMUEL H., and JAQUETTE, HELEN. *Our Community. Good Citizenship in Towns and Cities*. Philadelphia: John C. Winston Co., 1918. Pp. xiii+240.

BOOKS PRIMARLY FOR HIGH-SCHOOL TEACHERS AND PUPILS

ASHLEY, ROSCOE L. *The War and America. War Citizenship Lessons*. New York: Macmillan, 1918. Pp. viii+103. $0.60.

BROWNELL, HERBERT. *A Textbook in General Science and the Economics of Daily Life*. Philadelphia: P. Blakiston's Son & Co., 1918. Pp. xi+383. $1.00.

BURNET, PERCY B. (Editor). *Moratin's El Si De Las Niñas*. New York: Henry Holt & Co., 1918. Pp. vi+175.

GOLLOMB, JOSEPH. *That Year at Lincoln High*. New York: Macmillan, 1918. Pp. 290. $1.35.

COMFORT, FLORENCE C. *The Magic Voice*. (A play.) Chicago: Prang Co., 1918. Pp. 36. $0.25.

GLADDEN, THOMAS LUTHER. *Plane Geometry*. Boston: Richard G. Badger, 1918. Pp. x+165. $1.00.

KARPINSKI, L. C., BENEDICT, H. Y., and CALHOUN, J. W. *Unified Mathematics.* Boston: D. C. Heath & Co., 1918. Pp. viii+522.

KISSELL, MARY LOIS. *Yarn and Cloth Making An Economic Study.* New York: Macmillan, 1918. Pp. xxvii+252. $1.60.

VAN BUREN, HELEN W. (Compiler). *Contes du Pays de Merlin.* New York: Macmillan, 1918. Pp. xiii+161. $0.48.

PUBLICATIONS OF THE UNITED STATES BUREAU OF EDUCATION AND SIMILAR MATERIAL IN PAMPHLET FORM

ASHBAUGH, E. J. *Survey of the School Buildings of Muscatine, Iowa.* Extension Bulletin No. 41. Iowa City, Iowa: University of Iowa, 1918. Pp. 38.

Arithmetic. School Document No. 5, 1918. Boston: Public Schools, Department of Educational Investigation and Measurements. Pp. 38.

BUREAU OF EDUCATION. *Eighteenth Annual Report of the Director of Education.* Manila, P. I.: Department of Public Instruction, 1918. Pp. 162.

English. School Document No. 6, 1918. Boston: Public Schools, Department of Educational Investigation and Measurement. Pp. 35.

JAMES, G. F. *The Schools of the People.* San Francisco: Western Department, National War Work Council, Y. M. C. A., 1918. Pp. 13.

MORGAN, E. L. *Rural Community Organization.* Amherst, Mass.: Massachusetts Agricultural College, 1918 Pp. 54.

NIMS, MARION R. *Woman in the War. A Bibliography.* Washington, D. C.: Government Printing Office, 1918. Pp. 77.

FEDERAL BOARD FOR VOCATIONAL EDUCATION, Washington, D. C.:

Retail Selling. October, 1918.

To the Disabled Sailor and Soldier in the Hospital. November, 1918.

Trade and Industrial Education. October, 1918.

Part-Time Trade and Industrial Education. October, 1918.

The Home Project as a Phase of Vocational Agricultural Education. September, 1918.

UNIVERSITY OF NORTH CAROLINA RECORD. *Comparative Results of a State-Wide Use of Standard Tests and Measurements.* Chapel Hill, N. C.: University of North Carolina, September, 1918 Pp. 24.

UNITED STATES BUREAU OF EDUCATION, Washington D. C.:

Vocational Guidance in Secondary Education. Bulletin No. 19, 1918.

The National Council of Primary Education. Bulletin No. 26, 1918.

The Training of Teachers of Mathematics. Bulletin No. 27, 1917.

MISCELLANEOUS BOOKS AND PAMPHLETS

ABBOTT, EDITH. *Democracy and Social Progress in England.* Chicago: University of Chicago Press, 1918. Pp. 17.

GRUSE, EDWARD. *Echoes of Democracy.* Boston: Gorham Press, 1918. Pp. 60.

IOWA PATRIOTIC LEAGUE. *Bibliography.* Extension Bulletin No. 40. Iowa City, Iowa: University of Iowa, 1918. Pp. 48.

KAHN, OTTO H. *The Menace of Paternalism.* New York, 52 Williams Street: The Author, 1918. Pp. 93.

PETERS, CHARLES C. *Human Conduct.* New York: Macmillan, 1918. Pp. xi+427. $1.30.

TAFT, WILLIAM H., and OTHERS. *Win the War for Permanent Peace.* New York: League to Enforce Peace, 1918. Pp. 253.

The German-Bolshevik Conspiracy. Washington, D. C.: Committee on Public Information, October, 1918. Pp. 30.

The Bases of Peace as Voiced by President Wilson. Chicago: Union League Club, 1918. Pp. 34.

WILSON, G. G. and OTHERS. *A League of Nations.* Boston: World Peace Foundation, June, 1918.